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The Complete Sportsman.

GASPER.



QUAIL SHOOTING.

THE COMPLETE SPORTSMAN

A MANUAL OF SCIENTIFIC AND PRACTICAL KNOWLEDGE
DESIGNED FOR THE INSTRUCTION AND INFORMATION
OF ALL VOTARIES OF THE GUN

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BY HOWLAND GASPER

" . . . hunting is the sport of kings, the image of
war without its guilt, and only five-and-twenty
per cent. of its danger."—JOHN JORROCKS.

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BY HOWLAND GASPER.

TO THE
SPORTSMEN OF AMERICA,
A PURE AND NOBLE FRATERNITY,
THIS BOOK
IS FONDLY DEDICATED
BY THEIR TRUE AND WELL WISHING FRIEND,
THE AUTHOR.

INTRODUCTION.

IN writing the present book the author has had in view only one object—so to familiarize the sportsman with the habits of the game he pursues, and with the methods of hunting it, that his success in the fields and marshes may be practically assured.

By careful reading of the following chapters the sportsman may appropriately equip himself for hunting, attain proficiency in the art of shooting, and enter the fields informed of the habits of game and the most approved methods of hunting it. An absence of anecdotes will be remarked, except when their insertion proves desirable for illustration. Accurate descriptions of the game birds are given, from Audubon and Wilson, in order to facilitate the identification of species. With these before him the sportsman need not mistake one for another. The author is confident that the reader will appreciate the value of the thorough exposition of wild fowl shooting here given. Because of its popularity and pleasure yielding qualities, that pursuit is entitled to greater consideration than the other kinds of hunting.

That the perusal of this work may afford the sportsman a generous measure of satisfaction, and that the practice of the methods described may yield him a rich reward of genuine enjoyment and excitement, is the sincere wish of

THE AUTHOR.

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PART I.

THE GUN.

THE COMPLETE SPORTSMAN.

CHAPTER I.

The Selection of a Gun.

"The song of the wild bird is sweet from the thorn,
But the gun hath more music than these."

THE first acquisition to be sought by the sportsman is a good gun. The majority of those who hunt for recreation, and require a weapon that will prove effective alike for hunting geese on the marshes and hares and squirrels in the woods, will find the 12-gauge most serviceable. It is pre-eminently the gun for all-round shooting. There is always a difficulty in finding a medium-sized arm which will answer equally well for the various kinds of hunting our game affords. A number of sportsmen keep several guns of

various weights and gauges; and have therefore the choice of different weapons, as circumstances render desirable. This luxury, however, is attended with considerable expense. Moreover, in the author's judgment and experience, such accurate shooting cannot be obtained in changing from one weapon to another, as when using only one gun; and the custom cannot be recommended. A 12-bore gun should weigh $7\frac{1}{4}$ lbs., except when the shooter's physique would render a lighter one of $6\frac{3}{4}$ lbs. more comfortable to handle. One may carry such a gun for miles without experiencing any great inconvenience or fatigue, whereas a heavier arm of $8\frac{1}{2}$ lbs. soon tends to weary the sportsman, and thus detracts from his enjoyment. When loaded with $3\frac{1}{4}$ drs. of powder and $1\frac{1}{8}$ oz. of shot, the lighter gun will kill ducks and grouse at 40 yds. By charging with shot of suitable sizes, it will be found effective for either duck or woodcock shooting.

The barrels should be 30 in. in length. If shorter than this, the powder of an effective charge will not be entirely burned before leaving them; and the charge will require diminishing. At the muzzle they should not be thicker than brown paper, thereby throwing the

greater weight in the breech. This advantage, however, is found only in guns of superior grade; the cheaper metal employed in the manufacture of low grade arms will not permit it.

To insure close shooting, and a good penetration, the gun should be choke-bored. This consists in constricting the interior of the barrel near the muzzle, to throw the shot more closely bunched, thereby securing greater force than with a cylinder-bored gun. For shooting at close range, the cylinder-bore is preferable; but the cylinder-bore is not desirable, because there is no practical method of causing it to shoot as closely as the choke-bored, while the choke-bored itself may be made to scatter the charge, as described in the chapter on loading. The choke-bored gun will kill 10 yds. further than the cylinder, and is therefore greatly its superior. A good plan is to order the right barrel either a cylinder or modified choke, and the left a full choke. On flushing a bird, and when it is at close range, the right barrel may be discharged; and as the range is lengthened the left may be used. This gun, loaded with $3\frac{1}{4}$ drs. of powder and $1\frac{1}{8}$ oz. No. 6 shot, should throw 150 of the pellets in a 30-in. circle with the right

one would do.

or modified choke barrel, and 200 with the left. If it does this, the owner may assure himself of his gun's effectiveness.

As previously stated, close pattern is always attended with good penetration. Some dealers allow a gun to be targeted before it is purchased. This is a great advantage to the purchaser, as he is at least assured a good shooting gun.

Nearly every gun sold to-day is provided with a mechanism which returns the hammers to half-cock. It is more dangerous, however, than the old form of half-cock, for should the hammer be struck on the head, or raised almost to full-cock, and allowed to fall, a discharge will generally result. Then, again, in a few of the cheaper grades of guns, even when at half-cock the hammers rest on the firing-pins. More than twenty-five per cent. of the shooting accidents are attributable to this imperfection. When the gun is pulled out of a boat the hammer may catch and be raised; and when released it will come in contact with the firing-pin, causing an explosion. The author has experienced two accidents of this nature.

The fit of a gun is of the most vital importance; and

much of the comfort and success of the sportsman are dependent upon it. Where practicable, a large dealer should be given the preference, when one is purchasing a fowling piece, for, having a better stock to select from, the sportsman may suit his tastes. To test the fit of the gun, it should be brought to the shoulder and aimed at any convenient mark. If it comes into position without requiring one to crane the neck, to sight along the barrel, it is probably correctly fitted. If any difficulty attends the raising to the shoulder, the trial should be repeated with others, until one is found that comes readily into position. The pistol grip is of great advantage, as it allows the gun to be grasped more firmly, and lessens the force of the recoil on the shoulder.

In some guns the triggers are so placed as to prevent the easy insertion of the finger between them. This should receive attention. On the other hand, they should not be set too far apart, for this increases the difference in the length of stock, when the finger rests on the right or left trigger. The trimmings should never be nickeled; few things more quickly attract the attention of game than a glistening object. A good

walnut stock should be selected in which the grain runs longitudinally. In some the grain runs almost cross-wise, greatly increasing the risk of fracture. The butt plate may be of horn, rubber, or steel. Though less ornamental than the others, steel is not so liable to break when the gun is dropped. It materially strengthens the base of the stock.

For the sportsman of weak constitution and for ladies, a small-bored gun of light weight will be found serviceable. The 28-bore will prove a very effective weapon in the hands of an expert. With such an arm, "Young Nimrod," when eleven years old, killed 38 out of 50 bluerocks at 27 yds. rise. It should weigh about 4 lbs. and may be loaded with $1\frac{1}{2}$ drs. of powder and $\frac{3}{4}$ oz. No. 6 or 8 shot. The 12-bore, of $6\frac{1}{2}$ lbs., may be charged with 3 drs. of powder and 1 oz. of shot; and will shoot very effectively, the recoil being very moderate. The barrels may be 28 in. in length. If lighter firearms of smaller bore were used generally, the pleasure in hunting would be greatly enhanced, and the fatigue often induced by long tramps greatly reduced.

To shoot buckshot well, the gun should be specially constructed for the purpose. Then it will prove an

effective weapon for deer, bear and antelope at distances less than 50 yds. Mr. Alexander cites an instance of killing a deer at 91 yds. with a gun specially made for him by W. W. Greener. He asserts that at 100 yds. it has killed deer with utter certainty.

The cylinder-bored gun will shoot spherical bullets with comparative accuracy up to 40 yds. The ball should pass through the barrel easily. At the 40-yd. range a good shot should put every ball within a 12-in. square. Bullets are manufactured expressly for the purpose, and will give much better results than the ordinary solid ball.

Hammerless Guns.

The unanimous opinion of those who have used it, together with the increased demand for it, is sufficient evidence to prove the superiority of the hammerless over the hammer gun. For every accident resulting from its use by those ignorant of the mechanism, a hundred are avoided. A safety catch effectively holds the tumblers at full-cock until it is pushed forward; this device is far more reliable for preventing accidents than any system of rebounding locks. Whenever the tumblers are returned to full-cock this catch sets auto-

matically and must be released before the triggers can be pulled. In guns where the falling of the barrels does the cocking, to lower the strikers press the triggers and close the gun slowly. In some arms the cocking is effected by opening the action ; but this is a less desirable arrangement than the other, for greater pressure is required than when the dropping of the barrels cocks the gun.

Both Greener and Scott manufacture hammerless guns, which automatically eject the discharged shells. With paper cases, which are not retained after shooting, the automatic ejector is desirable, provided the shells do not fit too tightly. It ejects only the discharged shells ; the unfired cartridge is extracted only as far as in ordinary guns. The prices charged for the automatic ejectors preclude their possession by the majority. The author is of opinion that the force necessary to press down the barrels, due to the extra mechanism, counterbalances any advantage derived from the improvement, unless it may lie in the greater rapidity with which the gun can be reloaded.

We will concede that the hammerless gun is less attractive in appearance than the other, also that a

great many birds may be lost through failure to release the safety catch. Since, however, the annoyance is soon overcome, and because safety in a firearm is preferable to looks, the adoption of the hammerless gun is strongly urged. It may be bought for from \$40 up to any price one may wish to pay. If a cheap weapon is to be procured, it is more prudent to buy a hammer gun, for its quality will be much better than that of a hammerless of the same price. The reason for this difference lies in the fact that the quality is sacrificed to make up for the expense of the hammerless improvement.

Repeating Shotguns.

A few years ago, a shotgun was introduced into the market, which, it was hoped, would attain the success of the repeating rifles then so generally used. The result, however, was the reverse of that expected. That great rapidity in shooting may be attained with the repeating shotgun was demonstrated by the feat of Mr. Wolstencroft, at the American Shooting Association's tournament, in 1889, when he broke five clay-pigeons, sprung simultaneously. But because of a tendency of the cartridges to jam, a hundred shots cannot

be fired as rapidly from a repeater as from a hammerless ejector gun. A test match was shot between a representative of a firm manufacturing repeating shot-guns, and a sportsman using a Greener ejector gun. The result proved a victory by three minutes for the ejector.

Combined Guns and Auxiliary Barrels.

The combination of a rifle and shot barrel in the same gun, or, as made by some manufacturers, of two shot barrels with a rifle barrel placed beneath, possesses no great advantages. In localities where feathered game and dangerous animals are to be met, such an arm might be of great service. But when one hunts, it is generally for a particular kind of game; and either the rifle or the shotgun alone in a single weapon is preferable. Where large game is pursued, a shotgun is generally of no avail, owing to the hunter's unwillingness to shoot at small game, fearing to ruin his chances of a better prize. On the other hand, where a shotgun is used, a few charges of buckshot may be carried, which will prove valuable when running across large animals.

The auxiliary rifle barrel is intended to be placed temporarily in the barrel of a shotgun. It is not injurious, owing to rubber rings, which prevent the scratching of the interior of the barrel. Excellent results may be obtained through its use; any ordinary caliber is procurable, to fit either the 10- or 12-bore shotgun.

Adjuncts of the Shotgun.

Certain little devices, when employed in connection with the shotgun, afford much convenience to the shooter. One of the most valuable of these is the rubber recoil pad, which, fitted over the butt plate, minimizes the unpleasant results of the recoil. It is made both of solid and of hollow inflatable rubber. An arrangement of springs, devised to answer the same purpose, has proved a failure.

To prevent the second finger from becoming lacerated by contact with the first trigger on the recoil, a rubber finger ring should be worn. Another means of effecting the same result is by hinging the front trigger, which is pushed forward when it strikes the finger. A simpler way of obviating the trouble is to wear an old glove finger. Winding a rag about the trigger is

dangerous, as in cocking the hammer the cloth may prevent the return of the trigger to position, and a premature explosion result. The recoil check pad is fastened to the stock and lessens the force with which the stock strikes the face in badly fitting guns.

A diamond sight has been invented, by use of which, it is claimed, the gun can be sighted in a darkened place. Having had no experience with this, the author cannot estimate its value. The ivory bead shotgun sight is far superior to the ordinary brass pin now employed. By its application to the gun, a quicker aim may be taken, and accurate shooting enhanced in dark woods.

CHAPTER II.

Loading the Gun.

FOR the gun and its charge a fitting analogy may be found in the boat and its sail. When we have attained a certain area of sail, going beyond that limit will only prove detrimental to the craft's progress. So it is with the gun; a suitable proportion of powder and shot being found, any deviation in measure will be attended with proportionate loss of range. Some novices reason that, if double the amount of powder is used, the killing power will be doubled. This theory, though less disastrous in the application, is like that of the savant, who, reasoning that if one dose of medicine would give temporary relief, concluded that a dozen would effect a permanent cure. It is unnecessary to add that he found immediate immunity from all his ills.

No particular charge can be set down for any individual gun. Two guns constructed as closely alike as is possible, will not shoot to their best advantage with the same charge, no more than two watches of the same make and quality will be found to keep time with like accuracy, when the regulators of both are placed at that point which may be the best for one of them.

The only satisfactory method of determining the charge with which a gun will prove the most effective is to test it with various proportions of powder and shot, and with different sized shot and large and small grains of powder. The $7\frac{1}{4}$ -lb., 12-bore gun, with 30-in. barrels, will generally shoot to best advantage with between 3 and $3\frac{1}{2}$ drs. of powder and $1\frac{1}{8}$ oz. of shot. The quantity of powder depends upon the strength and the size of grain. If too much powder is employed, a portion will be discharged from the barrel without having exerted any force on the shot before it. The quantity of powder a gun will ignite can be determined by the following method. Load several shells with $2\frac{3}{4}$, 3, $3\frac{1}{4}$ and $3\frac{1}{2}$ drs. respectively, with the usual allotment of shot. Use these in the gun, beginning with the smallest charge, and shooting at a snowbank, hold-

ing the muzzle five or six feet distant from the mark. Immediately after the discharge of a cartridge which contains a superfluous amount of powder, the unburned grains will be found on the snow. The cartridge containing the $\frac{1}{4}$ dr. less than this one, then, has the suitable charge, and should be adopted for use. Instead of snow for such a test, a white piece of paper will answer. Place it on the ground a few feet from the muzzle, and if after a discharge the unburned grains are discovered, the quantity must be reduced. If larger charges than $3\frac{1}{4}$ drs. and $1\frac{1}{8}$ oz. of shot are to be employed it is imperative that a larger bore be used. The superiority of a big over a small bore is much more marked in the use of large shot than in that of small. An ounce of large pellets occupies considerably more space than a corresponding weight of small shot; and in any bore smaller than a 12 prove very unsatisfactory. Frequently a gun will shoot more evenly and give greater penetration with shot of one size than of another. This is referable not so much to the variation in size or number of pellets, as to the fact that one number may chamber more evenly than the other. Naturally, when the shot lies in layers, there will be

less liability of jamming than when they do not. When chilled shot is procurable it is always better to employ this than the soft shot. It is made with greater care, and because of the more perfect rotundity of each sphere, its diminished tendency to lead the barrel, and its non-poisonous qualities as made by some concerns, it is superior in every respect to the other. It has been asserted that, being harder, it will sometimes glance off from a bird's feathers; while the soft shot will not—but will flatten out on striking and inflict a more surely fatal wound. However much truth there may be in this flattening theory, it is obvious that the glancing off theory is erroneous.

One of the greatest secrets of good shooting lies in properly wadding the gun. The author has frequently seen guns give patchy patterns, merely because of faulty wadding. In loading, the powder and shot should be placed in two bowls, from which they may easily be scooped by the measure. A block should be provided, on which to place the shell, for if laid on a board, there is danger of the cap striking a nail. After pouring the powder into the shell, it should be gently tapped to settle the grains. A brass case placed



WILD TURKEY.

on the outside will prevent bulging when the wads are forced in. A cardboard or waterproof wad placed on the powder will separate it from the chemically prepared wads. A $\frac{3}{8}$ -in. white felt wad should then be well rammed down on top, several sharp raps with a mallet, kept for the purpose, serving to seat it firmly. Too much pressure is detrimental, because crushing the grains, it diminishes their strength. All shells should be loaded as uniformly as possible, thereby securing less variation in individual shots than might otherwise result. The shot should then be dropped in, a thin paper wad, manufactured for the purpose, being placed on top. The shell is now ready for creasing or crimping. If the shell is very long and the charge does not nearly fill it, creasing will be the most desirable. This is done by means of a creaser, which is placed on top of the shell and pressed down, bringing the sides tightly together. A creaser costs about forty cents. When circumstances require that the cartridges be carried around a long time, the wads may become loosened and allow the shot to fall out. The use of the bench-closer retains the wads more firmly, and the liability of the shot to escape is then exceed-

ingly small. When the load does not fill the shell within half an inch of the end, the shell may be cut off with a shell-cutter. This may be bought for a dollar. As the shortened shell does not occupy the whole chamber, and there is a slight space between it and the shoulder, where the chamber joins the main interior of the barrel, the employment of the shell-cutter is not advantageous. The general load allotted a shell will generally fill it sufficiently to render crimping practicable without tampering with the length. The cost of the bench-closer is about fifty cents.

For general loading, the author has found nothing exceeding the ordinary rammer, brass tube and block for seating the shell. In recent years several improvements have been introduced, but have attained no enviable reputation. The Barclay device is similar to the above, except that it has several interior springs which enter the shell and permit the insertion of the wads without liability of turning the end of the shell. It costs but forty cents, and its use is recommended. Several machines, for which great rapidity of loading is claimed, have been placed upon the market. The shot,

powder and wads are contained in separate receptacles, and the loading is rapidly accomplished by the depression of a handle. But since the wads are not so firmly seated by this machine as in the ordinary manner, and since firm seating is so essential to success, the use of the machine loader cannot be indorsed.

To ascertain the best shot charge for his gun, the sportsman should load several shells with an uniform quantity of powder, the amount having been determined in the manner already described. Ten shells should be loaded, five with 1 oz. of shot from No. 4 to No. 8 in size, and the other five with $1\frac{1}{8}$ oz. charges of the same sizes. At a distance of 40 yds. place an old stove door or piece of thick boiler iron. After chalking it well over and placing several sheets of paper before it, to catch the rebounding shot, shoot the first cartridge. Count the number of pellets that strike the mark, and observe the flatness of these on the sheets, to gain from this an estimate of the force with which they were propelled, which of course determines their penetration. Chalk the target and proceed as before. The charge which throws the shot most closely, that is with the individual pellets closest to each other, will in

all probability be that which throws the shot with the greatest force, as shown by the flattened pellets; and this should be selected in the future as the most suitable load. No. 6 shot would be preferable to No. 8, if it were thrown more closely and with greater penetration, and *vice versa*. The No. 6 is not likely to show better pattern, however, owing to the less number of pellets, nor is the No. 8 likely to have a better penetration. The author's experience, however, is that this sometimes is the case; on one occasion, at 40 yds., he shot a charge of No. 8 shot into a pole more closely and with greater penetration than any other size smaller than No. 5; but he has never been able to repeat the performance.

Even with the barrels full choked, guns will shoot buckshot. In order to determine the size of shot required, place a wad an inch down the muzzle, and laying pellets of shot on this, find a shot size that will chamber without forcing. In placing the layers of shot in the shell they should be separated by cardboard wads to prevent jamming. If these directions are not scrupulously followed, the use of buckshot may result in bulging or even breaking the barrel.

When it is desired to scatter the shot, as in grouse and hare shooting in dense undergrowth, where a close and snap shot is necessary, the following method may be employed. Place only one wad on the powder and two between the shot. Over the whole put a thick wad forced well home. At 20 yds. the same pattern will be obtained as at 40, when loaded in the ordinary way.

In America loaded cartridges may be had at almost half the cost of loading them for one's self, not allowing for the time and trouble required. They are purchasable for \$1.50 a hundred; and being loaded very evenly, and often with a good quality of ammunition, they give general satisfaction. Frequently, however, when bought from local dealers, the goods are old and mis-fires, or impaired penetration, result. In the chapters describing the several kinds of shooting, appropriate loads will be found designated for the particular kind of game to be taken. It is unnecessary to state that when No. 8 shot is recommended, as in quail shooting, a size either larger or smaller may be substituted, if it is found to shoot more closely and with greater force.

Attention to the above, the author confidently believes, will enable sportsmen to charge their weapons so that a fair killing range will be insured for even comparatively poor guns.

Shells, Wire Cartridges and Wads.

For ordinary shooting one is not warranted in buying the higher priced cartridge cases. The chief requisite of a good case is rapid and thorough ignition, with a firm texture of the material to preclude the chances of its breaking apart in the barrel or bulging on being fired. Many of the cheaper cartridges possess these good qualities in a marked degree, especially those of United States and Winchester manufacture. Out of several thousand of these makes used in the woods and on the meadows, the author has only had one mis-fire, and even that was due to a weak mainspring. Not so, however, with some others. There are placed on the market every year large numbers of cheap shells that give rise to the most distressing annoyance. Often a majority of the number will mis-fire; and as the heads sometimes pull off, it is necessary to carry a grip extractor to remove

the fragments. The extractor which may be purchased from the larger sporting goods houses, consists of a small steel rod with a hook at one end, the other having a ring in which to insert the finger. The ordinary extractors which are now made with a folding ring, to permit them to lie flat in the pocket, should always be carried.

In guns with a weak breech action, the "high life" and "demi-high life" cases may be advantageously used. They have a coil of thin brass on the outside of the paper, which reinforces the case, and minimizes the liability of an explosion at the breech.

Messrs. Eley manufacture cases of green, blue, buff and red. The different colors may be employed to distinguish different loads. For Schultze and E. C. powders, the last two are very desirable, possessing rapid ignition together with a capacity for resisting moisture.

The U. S. and Winchester cartridges can be reloaded six or eight times, and many sportsmen make a practice of reloading them. Considering their cheapness, it is more pleasant if not so economical, to buy new ones, than to carry the fired cases around in one's

pocket. In localities where there are no facilities for purchasing cases, the brass shell should be carried. The author is generally averse to the use of brass shells, and prefers those of paper whenever procurable. The brass easily corrodes; and in a wound or scratch, the vertigris, if received, causes great pain. Wads are constantly loosening, and the shot falls out. The shells must be washed regularly in boiling water and soda. In loading them, a wad one size larger than the bore of the shell is necessary. This is because the diameter of its interior is greater than that of the paper case. A thick wad placed over the shot will keep it in position. The Kynoch brass shells can be creased, and the sides being thinner than those of other makes, a larger charge can be used. A brass case is made, having at the end a rough interior surface, which securely holds the wad in position, but does not increase the shooting qualities. The Draper shell is provided with a removable head. This may be unscrewed, the exploded cap removed and another substituted. This arrangement dispenses with the necessity of carrying a cap remover and recapper.

There are numerous devices intended to increase the

killing range of the gun. The most successful attempt to render the 12-bore effective at a very long range is, probably, the shrapnel shell. This consists of two segments of a metal sphere, bolted together and containing the charge of shot. For a distance of 90 yds., so the inventor claims, it travels as a solid ball. From that point up to 150 yds. it scatters, and at the last distance makes a pattern of about 4 ft. Wire cartridges are also used for the same purpose. Concentrators are merely circular rolls of paper, tightly wound, and fitting snugly in the shell. They can be made by cutting off the end of a smaller shell that will just fit in the one for which it is desired. The object is to bunch the shot for a longer distance than can be done in the ordinary way. Such devices may be employed only in cylinder-bored guns; and, owing to the necessity of shooting the game at a specific range, while the concentrators have a tendency to break before or after reaching that range, the use of them is not advantageous.

In some localities it is customary for hunters to cut their own wads with a steel cutter made for the purpose, and costing fifteen cents. The material is

generally an old shoe, felt hat or piece of cardboard, whichever may prove the handiest. It is no cause for wonder, therefore, that shooting is often poor and variable. It is always feasible to buy wads. Those of $\frac{3}{8}$ in. white felt are the best to confine the powder. A waterproof wad is made separating the chemically prepared wad from the powder, as dampness is most detrimental to its strength. For confining the shot in brass cases, and in those of paper where it is not convenient or desirable to crimp them, the "star" wad is used. It has a metal top, which, pressing against the sides of the shell, holds it in place. It is better to employ a cheaper grade of powder, and convert the money thereby saved into good wads, than to sacrifice their quality. A number of dealers are placing on the market paper wads, which are invaluable for confining the shot. On leaving the gun they immediately fall apart, and so remove a great resistance to the shot. Not only is the shooting much improved by attention to the wadding, but the use of good and chemically prepared wads greatly minimizes the tendency of the gun to become dirty.

Gunpowders.

The proportion of the ingredients constituting gunpowder vary considerably in different countries. The most common mixture is: Saltpetre 75 per cent., charcoal 15 per cent., sulphur 10 per cent. Whether the sportsman is warranted in buying the best powder at a dollar a pound, or contenting himself with a cheaper grade at one-third that expense, is a mooted question. That the higher grades answer with a smaller charge, deposit less residuum in the barrels, and create less smoke, is admitted. But that they possess these advantages in a sufficient degree over cheaper powders to warrant their use, the author is inclined to doubt. At one time he used them to the exclusion of grades costing far less, but their slight superiority, in point of penetrating power, caused their abandonment. With respect to the best grain for the 12-bore and 10-bore guns, there is a decided diversity of opinion. Some maintain that No. 2 is preferable, on the theory that it ignites more rapidly, and that consequently between the fall of the hammer and the striking of the shot less time elapses than when a larger grain is used. It is believed that in a 30-in. barrel the No. 4 will give

general satisfaction. It ignites quickly, but yet does not exert all its force at the outset; it gives less recoil, and a more even pattern than the smaller grains; and there is less likelihood that a portion will be discharged from the barrel unignited.

The Schultze gunpowder, and the other nitro powders, have had their merits greatly exploited by manufacturers and agents. While the nitro gives a greater penetration, the pattern is not so close as that obtained by the use of the best black powders. For its use special cases primed with strong primers are necessary; and to insure thorough ignition a little black powder should first be put into the shell. In shooting, it varies considerably, both in pattern and recoil, although always comparatively noiseless and attended with little smoke. The chief objection, however, raised to its general employment, lies in its liability of exploding the gun. Several cases have come under the author's observation, in which guns have been exploded through its use. It must be more closely confined than the black powders, and whenever a complaint is made to its vendors regarding its unsatisfactory results, they invariably attribute the fault

to some error in loading; but it is probable that there is some other reason for the varying results besides the one given.

A good test for gunpowder is the following: Lay a pinch on a sheet of paper, and after applying a match watch the result. If it inflames instantly and leaves the paper clean and unburnt, the quality is good. Should a few grains of good powder be rubbed between the fingers, they will remain intact and leave the hand perfectly clean.

Shot.

The best shot is made of lead without a tin alloy. When it is hardened by a patented process, such as is employed at the Newcastle Chilled Shot Company's factory at Gateshead, it possesses great advantages. Being much harder than the ordinary shot, it will not lead the barrel, and each pellet being less likely to deformation in passing through the gun, a more accurate flight is obtained. The manufacture of small shot is effected by means of a sieve, to which is imparted a tremulous motion. Molten lead is then poured through the holes, and, dropping through the air

forms into globules, which fall into water. When the sieves become old and worn, some holes are larger than others, and consequently a number of imperfect pellets of varying size are found. These are removed before the shot is sold in the better qualities.

The practice of mixing different sizes of shot, under the supposition that at long range the larger pellets will be effective, while at close quarters the smaller ones will kill, is based on a fallacy. It will be found in shooting at a target at 40 yds. that only the larger shot will prove effective, the greater portion of the others having fallen to the ground in the intervening distance. The exclusion of the smaller pellets would have improved the shooting, as they only crowded and deterred the larger ones in their flight. In loading cartridges it must be borne in mind that an ounce of No. 1 shot will occupy a much greater space than an ounce of a smaller size. Therefore when the measure is gauged at $1\frac{1}{4}$ oz. and filled, there will be a greater or less weight than that required. For the convenience of those who desire to gauge their measures to suit the size of shot they wish to employ, the follow-

ing table is given. Different manufacturers vary in the number of shot to the ounce of a certain size:

DIFFERENT MAKERS' SIZES TO THE OUNCE.

SIZES.	BB	B	1	2	3	4	5	6	7	8	9	10
Tatham Bros.....	50	59	71	86	106	132	168	218	291	390	568	848
T. W. Sparks.....	55	63	80	90	118	130	182	245	305	426	615	950
N. Y. Lead Co....	49	58	69	82	98	121	149	209	278	375	561	822
Le Roy Co.....	49	58	69	82	98	121	166	209	278	375	560	822
St. Louis Shot Co..	53	63	79	98	116	163	181	252	306	426	584	981

CHAPTER III.

How to Hold, Use and Care for the Gun.

HOW can I become a good shot? is the question that often perplexes the sportsman for solution. To attain proficiency in the aiming of one's fowling-piece is, indeed, a valued accomplishment, affording, as it well does, double measure of pleasant amusement and satisfaction. How humiliating and discouraging must be the repeated misses of those who have not attained the requisite degree of skill for properly sighting their weapons.

The sportsman should first acquire a complete control of his weapon, an ability to bring it rapidly to the shoulder, and to throw it deliberately on the desired object. A stationary target should furnish the first practice, for familiarity in handling the arm must be

thoroughly attained before acquiring the more difficult and more satisfactory knack of shooting flying objects. Various writers on shooting have advocated the raising and pointing of the empty gun at a target to accustom its use; but such a practice would prove more detrimental to the sportsman's improvement than one might at first suppose. It would be like attempting to learn music on the organ merely by striking different keys without working the bellows. There would be no reliable clew of determining one's errors. So in practicing with the unloaded gun. It might be wrongly pointed time and again, and there being no recoil, carelessness in handling would result.

The secret of becoming a crack shot consists, first, in discovering the causes of one's misses, whether through shooting in front or behind, above or below; and then in a conscientious endeavor to correct them. The author believes that by closely practicing the following rules, almost any one may become a good shot; and when game is comparatively plentiful, may bag an enviable number in an excursion in the woods, fields or marshes.

There is nothing which affords to the true sports-

man more pleasure and satisfaction than the contemplation of a good shot. To drop a partridge as it flies with impetuous speed and is just disappearing from sight, to be swallowed up in the dense foliage of some wood, will afford the enthusiast a feeling of pride, and perhaps prompt a pardonable flattery of self for what appears to him to be a most laudable feat. The science of the art should always be above the greed of possession.

If the following method of practice be followed, it will be found productive of very successful results: At a distance of 40 yds. on a pole 6 ft. high, place a can, a wooden ball, or some other desirable object to shoot at. Diminish the charge for use to about three-quarters of the customary load. If the gun be loaded heavily, the sportsman, not being accustomed to shooting, may flinch under its recoil; and once contracted, this habit is exceedingly difficult to overcome. The gun should be pressed firmly against the shoulder; if it be allowed to rest lightly, the recoil, which amounts to about seventy-five pounds, will be more severe. At no time, in bringing the barrels to bear on the object, should they come between the eye and the mark. By observing

this rule, one may watch the movements of the game until the proper second to discharge the gun, and accuracy will thus be greatly enhanced. At stationary objects, it is always desirable to bring the gun to bear from a direction that admits of the greatest ease in movement, the foregoing rule being observed. For example, the gun must not be lowered on a stationary object, for the movement shuts out the line of sight until the muzzle falls below the target. It may, however, be raised, or swung from the left or the right to the target without conflicting with the above requirement. The right-handed shooter finding that the gun can be thrown to the left more rapidly and comfortably than to the right, should adopt that practice. It should be carried into position very slowly and deliberately, and discharged the instant of sighting. If it is brought a little past the target, or above or below, it should nevertheless be discharged; and the next attempt to aim should be more deliberate and sure. If one attempt to better the aim by a second sighting, the particular instance in which it is done may produce a better shot, but future accuracy will be sacrificed. The reader must remember we are not now concerned with rifle shooting,

in which a long time may often be utilized for ranging the weapon, but we are dealing with the shotgun, which must be aimed and discharged without hesitancy. Nothing is so detrimental to good shooting as bungling with the gun in the hope of improving the aim. The author has accompanied sportsmen in the field, who frequently on flushing a bird would follow its course with the gun until the range was so lengthened as to preclude bagging it, and then the weapon was lowered again. An inquiry why they did not shoot would be met with the invariable reply, "I didn't get the gun directly on them." I have suggested that in future they should shoot the instant the gun was pointed as closely as possible, without taking a second aim; and acting on this advice, they have bagged double the amount of game secured when they used to shoot only at such birds as they felt sure of hitting.

— “try

To draw the trigger just as you
At the gun's end the object view.
Nine times in ten the gun is right
At first, obeying well the sight.”

Some hold the very erroneous notion that to become a good marksman it is only necessary to shoot fifty or



RICHARDSON'S GROUSE.

a hundred cartridges a day at any and every thing one sees. The same care and attention should be given in acquiring good marksmanship that are given in learning to write. By adopting the mistaken notion referred to, one may indeed become capable of shooting very rapidly, but he will no sooner become proficient in the art than the pupil learning to write will become expert by dashing off pages of letters without regard to their formation. Firing twenty charges a day with intelligent carefulness will give better results than shooting a hundred times with only half the amount of care. The latter performance also tends to weary the marksman, and induces carelessness in aiming.

In firing a gun, most sportsmen place the index finger on the forward trigger, and remove it to the other one when it is desired to discharge the second barrel. The author always places fingers on both triggers at once; this admits of both charges being exploded more closely together than is possible by the former method. Beginners, however, should not adopt this plan at first, for in their anxiety to shoot, both triggers may be pulled simultaneously, which circum-

stance, though not endangering an explosion, may seriously bruise the shoulder.

In the good shot a perfect sympathy must exist between the eye and the movements of the hands, the hand being influenced and guided by the sensations of the eye. As the pianist, on seeing a certain note on paper, unconsciously strikes the proper key, so the expert shot, on sighting the game, raises and discharges the gun without consciously aiming along the barrels. So perfect in some men is this sympathy, that glass balls thrown in air are broken when the shooter is holding the gun behind his back.

There are two principal ways of shooting—snap-shooting and deliberate shooting. Snap-shooting consists in unconsciously aiming the gun in the act of raising it to the shoulder, and discharging it immediately upon contact. Owing to its rapidity, this method is very effective in certain kinds of shooting, such as on woodcock or hare, when the game is seen only for an instant. The deliberate shot, while he may so raise the gun to the shoulder that on contact it is properly sighted, will move it along with the object before firing. The latter method is generally the best, but when one

shoots both on the marsh and in the woodlands, familiarity with both styles is advantageous. Frequently those who imagine themselves to belong only to the class of deliberate shooters make snap-shots, where the slightest hesitation would be fatal to success.

Certain authors have advocated shooting with both eyes open, without specifying that it should not be attempted before the novice has completely mastered the art with only one open. Where neither eye has been used more than the other, the endeavor to aim at first with both open, is as hopeless as it is absurd. The tendency to aim with either eye would be equally strong, and neither one acting independently, confusion in aiming would naturally result. The learner should remember that habit is the result of practice, and by sighting at first with the right eye, he soon may leave both of them open. The advantages thereby obtained will be valuable. While one eye sees as clearly as two, both being equally strong, it cannot so well gauge the distance of an object; for this a focus is necessary. On the other hand, when the gun is sighted with one eye, only that half above the barrels is seen. The habit of closing the eyes immediately on

pulling the trigger is ruinous to accurate shooting. In using the muzzle-loader, when burnt powder escaped from the nipple, there was an excuse for this, but with the breech-loader there is none. Watts writes:

“Close neither eye, some good shots say,
Shut up your left, that’s not my way;
But still a man may take his oath
He’d better shut one eye than both.”

“Shooting,” by Blakey, contains the following sentence: “It is likewise recommended to place the left hand close, or nearly close, to the trigger, as this secures, in a great measure, immunity from any injury from the bursting of the piece.” One might better leave at home a gun constructed of material rendering desirable its being held as if an explosion were imminent. The author might as well have written: It is likewise recommended to load with only one-half the ordinary charge, as this secures, etc. The shooting in either event would have been sacrificed to safety. The weapon should be grasped by the left hand at least eight inches to the front of the trigger guard. Its motion can thereby more easily be regulated, and the steadiness increased. A number of prominent shooters

place the left hand even much further forward than this.

The tyro will doubtless think that to begin by shooting at stationary objects is beneath him, preferring to hunt live game at once, or to shoot at cans or targets thrown in air. He will, however, find it impossible to carry out the directions given in this chapter, if he must shoot hurriedly and without due deliberation, as is necessary in shooting at flying objects. Having mastered the handling of the gun, he may, if residing in a hunting locality, test his skill at living objects. The sora rail affords a good mark, flying very evenly and being found often in very large numbers. Meadow-larks likewise are given to steady flights, and with care should not be difficult to kill. The flight of cans thrown into air, and of inanimate targets hurled from traps, is essentially different from that of birds; artificial targets fly swiftly at the start, and then gradually slacken speed; by withholding fire until they thus move slowly, one has a better opportunity of hitting. With birds, the case is the reverse. It naturally follows, that to attain proficiency in one class of shooting does not insure expertness in another. In some

instances, becoming a good trap shot augments poor shooting in the field. Shooting at cans may be practiced, however, in absence of game. The practice of fancy shooting, as laying the gun on the ground, throwing a glass ball in the air, regaining the gun and breaking the ball before it reaches the ground, will prove advantageous.

The killing range of a 12-gauge shotgun, charged with the ordinary load of powder and shot, is not firmly established. One gun will often be effective several rods further than another, and the sportsman's experience will determine how great a distance he should shoot at game. Forty yards might be stated as the greatest killing range of the shotgun. Cases are cited of killing game at 100 yds., but such shots occur only once in a hundred times. In shooting at flying game the same rules as have been laid down for aiming and firing at stationary objects are applicable. The gun should never be aimed ahead of flying objects, and then stopped until the object comes in sight with the barrels. It should be moved along continuously until the instant of discharge.

In shooting flying or running game, the aim should

be from a few inches to 4 ft. in advance of the object. This is to allow for the distance traveled by the game during the interval between the pulling of the trigger and the shot reaching its destination. The exact distance one should aim ahead must be determined in each specific instance by the speed of the game, its distance from the gun, and the manner in which the sportsman shoots. Some hunters are in the habit of aiming at a bird's head as it flies, and giving the gun a slight jerk ahead at the instant of pulling the trigger, while others sight the weapon 3 ft. in advance of the object, and arrest its motion on discharging. By shooting at ducks, snipe and other birds as they fly close to the water's surface, one may determine the distance to be aimed ahead of a moving object. It is a well established fact, that the pellets of shot furthest from the center of the charge make an inferior penetration to the others. This accounts for the many birds that are only wounded, hit with the outer pellets of the charge. When practicable, it will be found more effective to shoot at a bird flying away from one rather than when headed on. The shot then encounters less resistance and inflicts a more certainly fatal wound.

It is advantageous to be able to gauge different distances, thereby knowing at a glance that the game is within range, or that to shoot would be unavailing. The best practice to obtain this ability is that of casting one's eye on a certain space or tree, and after estimating the distance, pacing it off to determine the accuracy or error of the estimate. It is remarkable how soon, by merely casting the eye on an object, one can tell its almost exact distance.

The barrels of a double gun are so constructed as to cause them to shoot inward at very long ranges. It is best, therefore, to use the right barrel for objects passing to the left, and the left for those to the right. But as it would be found confusing on most occasions to attempt to observe this rule, its practice is not recommended. Although a charge of shot will fall 8 in. in traveling 40 yds., the barrels are placed at such an angle with the sight as to dispense with the necessity of aiming above an object at that distance.

In firing the gun care should be given to the position of the feet. The gun can be more easily moved to the left than to the right, by a right-handed shooter. To render easy the aiming at an object crossing from

either direction alike, the right foot should be placed about 8 in. directly behind the left and at a right angle with it. The weight of the body should rest on the right foot, the other serving to balance the body. In walking, when there is a probability of shooting at any instant, especially in approaching a dog on point, the steps should be very short. If long, the sportsman may not be able to resume an easy shooting position, and a good shot may thereby be prevented.

The gun should be carried with the barrel standing upward across the chest at an angle of 45 deg., the left hand grasping the barrels about 8 in. in advance of the trigger guard, the right holding the pistol grip. By merely dropping the barrels, the butt is brought easily into the shoulder pit, and a shooting position is readily acquired. The gun should never be carried over the shoulder, with the barrels in front. A mis-step being taken, the butt will come in contact with the ground, possibly resulting in an explosion, which accident, the barrels being pointed toward the sportsman, would prove disastrous. In carrying a hammer gun, keeping the hammers at full-cock will always minimize the liability of an accident. This statement may appear

untenable, until good reasons are given for it. When not cocked, a gun will, if dropped, invariably be discharged if the unprotected hammers come in contact with any object. Or if, when the arm is carried through the woods, a twig catches the hammers and draws them back a little, the same thing will occur after they are released. But when the hammers are at full-cock, no ordinary jar will release them, and the triggers being protected with a guard, will be less liable than the hammers to strike objects. On the other hand, when one endeavors to cock the gun hastily, the hammer may slip when half raised, causing an immature explosion. A large proportion of the accidents in the use of firearms arises from dragging the gun from a boat or wagon box; the hammers strike some obstacle, are raised and released before catching, and an explosion follows. When the gun is carried full-cocked, accidents of this character are averted. A rule always to be borne in mind and observed to the letter is: Never point the gun at any one, nor get in front of the barrels yourself.

The danger of a gun exploding is very slight, though a pressure of 40,000 pounds is sustained at each dis-

charge. Foreign substances, such as snow and mud in the muzzle, will not generally cause the barrels to burst. The danger, notwithstanding, is sufficiently great to warrant exercise of the most scrupulous caution to keep the barrels clear. Those who plug the muzzles of their arms when not in use with wads or corks to exclude dust, should be exceedingly careful to remove them before shooting. A wad, moving forward in the shell, and leaving an unnecessarily large space for the shot, may likewise cause an explosion. In shooting brass shells, it will prove advisable to inspect the one in the left barrel after shooting the right, to see that the load has not been displaced.

If sportsmen could be impressed with the importance of properly cleaning their guns, the shooting qualities would be incalculably increased. Nearly everybody employs a different method of swabbing out the barrels of a fowling-piece, some using animal oils, others kerosene, while still a few maintain that boiling water is very effective in removing burnt powder, especially in cases where it has caked. After trying all these ways, the author has found nothing more satisfactory than animal oils. As early as possible after

shooting, the barrels should be thoroughly cleaned. The use of a wire brush, made of very fine wire, will be found invaluable. It will not scratch the interior of the barrels, as many assert, and thereby injure their shooting qualities. After loosening the powder with a brush, a rag (of flannel preferred) should be run through the barrels. This should be repeated, replacing the dirty rags by others, until they pass through comparatively clean.

To remove rust from a barrel, thoroughly rub the parts with a rag, moistened with kerosene, and covered with fine ashes or emery dust. When kerosene is employed, it should be well removed before the parts are oiled. Before hunting, if the gun be smeared on the outside and in with sperm oil, the tendency to rust will be overcome. When shooting in salt water localities, and when the atmosphere contains considerable moisture, this precaution should always be observed. The locks may occasionally be removed, and their mechanism lubricated with the best sperm oil. When placing the gun aside after the shooting season, it is not advisable to discharge two cartridges in the barrels, as is sometimes done, with a view to secure against



DUSKY GROUSE.

rusting. The powder deposits a residuum, which produces the very corrosion of their surface that it is desired to prevent. The best method is that of plugging the muzzles with two greased wads, or wooden plugs made for the purpose, the breech opening being effectually closed by two empty shells. The interior of the barrels should first be thoroughly greased with vaseline. Then the gun may be placed in an air-tight case and left for months without risk of becoming rusty.

It is not repeated firing that renders a gun shaky in the breech so much as the lack of care bestowed on it. The barrels should be dropped and closed gently and not with a jerk, as is often the case.

A gun requiring to be repaired or overhauled should be expressed to a reliable gunsmith, if there is none in the locality, rather than to be placed at the mercy of some local tinker. If it does not shoot as closely as is desired, it may be sent to the factory to be choked to do so; the cost of this is comparatively small.

With proper care a well-made gun should last a lifetime, and its sight be ever a source of pleasant and gratifying recollections, as the memory of its associations spring up in the mind of the possessor.

PART II.

DOGS.

CHAPTER IV.

" And he was faithful to a corpse,
And kept the birds and beasts
Which hungered there, at bay."

Dogs—Their Use and Management.

THE employment of active and well-trained dogs is not only highly desirable in certain kinds of shooting, but the sportsman's success, however well he may be otherwise equipped, would prove only limited indeed, were he deprived of his canine assistants.

The limits of the present volume do not admit a description of all the breeds used in conjunction with the gun. Only those, therefore, most valuable in the field will receive mention; and the staghound, foxhound, beagle, lurcher and retriever, though admirably suited for hunting running game, will not receive the same notice.

The pointer derives its name from its habit of remaining rigid in a standing position, on scenting the game, whereas the setter originally crouched or "set," when the game was discovered. At the present time, however, the setter is so far the imitator of the pointer that it remains erect on perceiving the bird.

The extreme sensibility of the olfactory nerves of the English setter is such that it will come to a point at almost every strange odor that crosses its nostrils, and often will stand at squirrels, chickens and sparrows, giving much annoyance to the sportsman. They are only broken of the habit by the administration of severe chastisement, which is often productive of other evils which are quite as objectionable as those it is sought to suppress.

Though less handsome and not so engaging in manners as the setter, the pointer is far more tractable, and is credited with a faculty of transmitting to its posterity in a marked degree the sporting qualities of its own nature. Again, while the setter will not hunt well unless it can wet its coat at least once an hour, the pointer will remain for long periods without water, and on account of the shortness of its coat it suffers less

than the setter from heat. In the South it is consequently preferable.

In the color of the hair pointers vary considerably, and much discussion exists as to what tints are the most desirable. The author does not approve of black or liver-colored dogs, for, though attractive to the eye, they cannot be distinguished readily in the woods. White dogs, with an occasional spot of black, can be more easily perceived through the herbage, and thereby the liability of accidentally shooting the animal will be minimized.

“Stonehenge” describes the points of a good pointer as follows: “A moderately large head, wide rather than long, with a high forehead and intelligent eye, of medium size. Muzzle broad, with its outline square in front, not receding as in the hound. Flews (*i. e.*, the overhanging lips) manifestly present, but not pendent. The head should be well set on the neck, with a peculiar form at the junction seen only in the pointer. The neck itself should be long, convex in its upper outline, without any tendency to a dewlap or a ruff, as the loose skin covered with long hair round the neck is called. The body is of good length, with a strong loin,

wide hips and rather arched ribs, the chest being well let down, but not in a hatchet shape as in the greyhound, and the depth in the back ribs being proportionably greater than in that dog. The tail or stern, as it is technically called, is strong at the root, but, suddenly diminishing it becomes very fine, and then continues nearly of the same size to within 2 in. of the tip, where it goes off to a point, looking as sharp as the sting of a wasp, and giving the whole very much the appearance of that part of the insect, but magnified as a matter of course. This peculiar shape of the stern characterizes the breed, and its absence shows a cross with the hound or some other dog. The shoulder blades should be long, slanting, and yet muscular, the upper arm long, a very low elbow, and a short fore-arm. The feet must be round and strong, and padded with a thick sole, the knee strong, and the ankle of full size."

There are no material points of difference between the pointer and the setter, though the setter has larger legs in proportion to its body, shows a stronger attachment to its master, and is possessed of a greater degree of energy and quickness of motion than its congener.

There are several breeds of setters, chief among

them the English and the Irish. Both possess excellent qualities, compared with pointers; their rough and heavy coat enables them better to withstand the inclemencies and vicissitudes of our weather, and to penetrate with less injury to themselves, woods and stubbles in quest of game. Altogether, the setter is a most desirable assistant in partridge and quail shooting, and for hunting in the northern United States it is vastly superior to all other dogs.

The points of the setter, according to "Stonehenge," are as follows: "A moderately heavy head, but not so much so as in the pointer; the muzzle not so broad nor so square in profile, the lower angle being rounded off, but the upper being nearly a right angle. The eye is similar to that of the pointer, but not so soft, being more sparkling and full of spirit. The ear, long and thin, and covered with soft, silky hair, slightly waved. The neck is long, but straighter than that of the pointer, being also lighter and very flexible. The back and loins are hardly so strong as those of the pointer, the latter being also rather longer; the hips also are more ragged, and the ribs not so round and barrel-like. The tail or flag is usually set on a

little lower, is furnished with a fan-like brush of long hair, and is slightly curled upward toward the tip, but it should never be carried over the back or raised above the level of its root, excepting while standing, and then a slight elevation is admired, every hair standing down with a stiff and regular appearance. The elbow, when in perfection, is placed so low as to be fully an inch below the brisket, making the fore-arm appear very short. The hind feet and legs are clothed with hair, or ‘feathered,’ as it is called, in the same way as the fore-legs, and the amount of this beautiful provision is taken into consideration in selecting the dog for his points.”

The spaniels are of various varieties, chief among which are the cocker and the water spaniel. The former is a very sprightly animal, and enters into the chase with quite as much ardor and enthusiasm as its master. Its weight seldom exceeds 20 lbs.; the ears are long and covered with considerable hair, as is the tail. The colors differ considerably; the hair is long and curly. On account of the spirit they manifest for hunting, they are easily trained, and for woodcock shooting are great favorites. The coat should be of

such thickness that the dog will suffer little from the continual wettings it receives from dripping coverts into which it forces its way. It can be taught both to point and to retrieve the birds, thereby being rendered doubly valuable in certain kinds of hunting.

The water spaniel derives its name from its great predilection for the water. When one is shooting along the margins of creeks and in the marshes, its assistance is invaluable for retrieving the birds falling out into the water or among the grasses. Not only is it an admirable swimmer, the broad paws enhancing its aquatic powers, but it dives with great skill and rapidity. A duck shooter, who owned one of these talented dogs, informs me that it would dive after wounded ducks, and often return to the surface with the quarry held securely in its mouth. A dog with this ability must be far more desirable than an ordinary animal, which can merely outswim a wounded and much weakened duck.

Brought much into the society of its master, the dog becomes very amenable to his authority, and its value for retrieving is thus augmented. The coat of the spaniel emits a very unpleasant odor, produced by the

abundance of natural oil the skin supplies. By frequent washings with warm water and soap, this disagreeable feature may be wholly overcome.

The training of spaniels as retrievers is attended with variable difficulty in different individuals, and while a few are taught with comparative readiness, others exhaust the patience and perseverance of the most painstaking trainer. The sportsman should himself undertake the training of his own dog, thereby decidedly augmenting the ease and readiness with which it carries out his orders.

There are various ways of training a dog to retrieve, each possessing certain advantages. The method employed by the author, since it is easily understood and is generally successful in obtaining the desired results, will be described. Place an old glove in the dog's mouth, and walk away, at the same time repeating the command, "Fetch!" The chances are, that the glove will immediately be dropped; whereupon a slight stroke should be given him to show your displeasure. If the glove is again released, the same course must be continued. The punishment should never be so severe as to frighten the dog sufficiently to render it

nervous. After a short time your pupil will prefer to carry the glove rather than to receive the punishment which follows its release. After he has carried it a few feet, he may be relieved of the article; and a piece of cracker or a bit of meat given him as a reward. After half an hour of this rudimentary training, the glove should be placed on the ground; and on the word "Fetch!" being spoken, the dog should be required to pick it up and bring it to you. If it refuses to do so, lower its head and require it to carry the glove. After a few hours' practice, the glove may be thrown some distance; and at the simple command, "Fetch!" the dog will retrieve it. The dog soon associates the word with the act; so that the spoken command will cause him to perform the task almost unconsciously, just as the soldier in ranks wheels to the right on the captain's command. The sportsman should always bestow some favor on his dog whenever it behaves meritoriously, thereby expressing his satisfaction and encouraging it to new efforts. After it has been thoroughly taught to fetch sticks or balls, there will be no trouble in teaching it to retrieve game.

Many sportsmen are given to believe that there is

some remarkable skill required to teach a dog to point; and so, though they have ample time and even a desire to train their own dogs, they engage another to do it. Patience and perseverance are the chief requisites in training any animal, and whoever possesses these, with a fondness for dogs, may be his own trainer.

The method favored by the author is as follows: When the dog has reached the age of 8 or 10 months, preferably the former, take him into the field. Fasten a long rope to his collar and place a piece of meat a few feet ahead of his nose. When he attempts to reach it, jerk him vigorously to a standstill, at the same instant shouting to him the word "Point!" After this performance is repeated several days, the animal will almost unconsciously come to a standstill before finally seizing the coveted morsel. He may then be taken into the field and his ability determined in pointing the quail and ruffed grouse. He should be taught to traverse the ground very slowly and cautiously when the word "Steady!" is spoken. Thus, when he has found a trail and shows evidences of being in the vicinity of game, the sportsman may cause him to move cautiously. If his previous training has been thorough,

in all probability he will come to a standstill on discovering the game. It would perhaps be well, if it is evident that he is very close to the bird, to bring him to a point by the command "Point!" But if, through over-haste or carelessness, he flushes the bird, he must be reprimanded on the spot. There are times, however, when the game takes alarm through no fault of the dog, and when, to punish him, would be most unjust, if not disastrous to his successful training.

In feeding a dog in the morning it is not desirable to allow him meat, especially not pork. His scent is weakened by meat, and his work will be far less satisfactory than when he is given boiled cornmeal.

It is held that where the best results are to be obtained from a dog used for pointing game, it is fatal to its value as a pointer to train it also to retrieve. Moreover, a dog that is a retriever will often flush a bird in attempting to retrieve it, before being pointed or shot. While the two qualities are very valuable in the same individual, the author's experience is that a dog, however tractable and intelligent, cannot successfully answer for both purposes.

Not a few bird dogs are permitted to run loose in

the field during the close season. This is not only ruinous to the preservation of game, as they often kill the young birds; but, it in addition decreases the value of a dog tenfold. Being unchecked, he flushes covey after covey, and when the shooting season opens, the owner is unable to account for his dog's failure to point.

To rid a dog of the parasitic insects that infest its coat, there is no more effective means than exterminating them by completely sprinkling the hair with Persian insect powder. The dog should be placed on his back and the powder well rubbed into his hair with a strong-bristled brush. Should the animal be cross, a muzzle may be placed over its head before the operation is performed.

The sportsman should study his dog, and when a kind word or gentle stroking of its head will secure the same result as a whipping, it should be bestowed. Being brought more closely into association with its master, the dog will more readily understand him, will show a better disposition to please, and in numberless ways will augment the pleasure and success of a day's excursion in the field.



MASSENA PARTRIDGE (MALE).

PART III.

WILD FOWL SHOOTING.

CHAPTER V.

" All the sports of the field are delightful, I own,
But none can with shooting compare ;
'Tis a joy that entices the king from his throne,
'Tis a joy the wisest may share."

Comments on Wild Fowl Shooting.

FOR American and English sportsmen alike, there is no branch of the shooting field that yields a more generous measure of exciting and healthy enjoyment than that with which we shall now deal. For those who possess robust and healthy bodies, and who are imbued with hunting enthusiasm, it has many qualities which afford ample compensation for all the labors and privations attending it.

During the earlier part of the open season, in localities where the ducks have been little persecuted, moderately good hunting may be obtained during pleasant weather in decoying dippers, whistlers and

broad bills. The successful duck shooter, however, welcomes the arrival of cold and blustering weather; and visits the meadows in rain and snow storms, with equal indifference to hardships incurred. A strong constitution is necessary for engaging in the sport; and even some men appearing to possess rugged health have contracted consumption through exposure to night airs and inclement weather when wild fowling. The duck hunter's clothing cannot be too scrupulously selected with a view to warmth and dryness; upon its texture and color in large degree depend the comfort of the sportsman and his ability to evade detection by the wary and ever alert water fowl. In describing a desirable shooting suit, the author considers the requirements of the more northern portions of the country, and not those of Florida and Mexico, where the climate is mild and sultry. The heavier sweaters extensively worn by football players are admirably suited to the purpose, and being donned readily and rapidly, will save much delay when one must rise at an early hour and dress hurriedly. The undergarments should be of heavy wool, the trousers warm and loose, that walking may be easy. A leather coat, which may

be bought in various qualities, is indispensable. Its capacity for keeping out the wind surpasses that of any wool garment; and well rubbed with linseed or neats-foot oil, it is rendered practically impervious to water.

Owing to the tendency of common rubber boots uncomfortably to heat the feet, there is general aversion to their use. A patent rubber boot has been introduced into the market for which is claimed perfect comfort of wear. The author has heard many recommendations of them, and believes them to be a great improvement over the old kind. The boots should reach to the hips, thereby admitting of wading in deeper water, and providing an additional warmth to the legs.

An oilskin suit, such as is used by fishermen, will be of the greatest value where hunting is practiced in stormy weather. It requires continual oiling to retain its moisture-resisting qualities. Being of a yellowish color it resembles the sedge, and when worn in connection with a "sou'wester"—a hat of the same color—will serve admirably to disguise the gunner's presence in the marsh. During the winter, a suit and hat of white material must be worn over the other coverings,

for any dark color will contrast too conspicuously with the surrounding ice and snow. A suit also of yellowish canvas must be utilized in fall and spring shooting when the oilskins are not worn.

To protect the hands from becoming wet, when decoys are being taken from the water, rubber mittens are desirable. Leather gloves are generally objectionable around water, for on becoming wet they stiffen, causing the fingers to become colder than without their use. Woolen mittens possess the greatest advantages, the one on the right hand being removable when one is about to shoot.

There are as many different successful methods of taking wild fowl as there are ways in which to hunt the various species of game birds and animals found on the uplands and in the woods. The localities where pursued, the season and the comparative wariness of the birds, greatly determine the mode of procedure, although at times the sportsman has the option of several ways, and the choice resolves itself into one of taste.

On the Lannes, in France, the local hunters employ a very unique and interesting method of shooting wild

fowl. Owing to the height of the reeds one cannot find his way through them, much less see to shoot above them. To overcome both difficulties, stilts are fastened to the legs, the bottom having a cup-like attachment, with the opening downward, to prevent their sinking in the mud. Mounted thus, the gunner is enabled to look above the rushes, and the ducks, rising into view, are immediately shot down. A spaniel attends him and performs the double duty of flushing the fowl and retrieving those that are shot. The sportsman takes them from the dog by a long pole, hooked at one end, and then deposits them in a bag carried for the purpose. To discharge a gun from such a position must be a very risky act, and especially humiliating to the beginner.

Flight shooting, in localities where practicable, is a very pleasurable and often profitable way of hunting wild fowl. It is extensively practiced on the western prairies. During the early hours of morning, and in the twilight of evening, large flocks of these birds pass to and fro between the lakes and pond holes to seek food or to find a resting place for the night. By taking a position between the two points, and con-

cealing himself, the sportsman may obtain excellent shooting. On such occasions the gun has been known to become so hot through rapid firing, as to necessitate a cessation of the sport until it cooled sufficiently to suffer the hand to grasp the barrels.

On the marshes along the sea coast, large flocks of ducks of such varieties as feed at night, make their way inland, and being in quest of a feeding ground, fly generally low, thereby affording liberal sport to those who have constructed good blinds in the proper localities. It is, perhaps, poor policy to shoot at these birds as they come in to feed at night, since it often happens that when thus frightened, they may depart and never return. However, as this tends to frighten only those that are shot at, and as they constitute but a small proportion of the wild fowl that visit a favorable feeding ground, the author sanctions the practice.

Shooting at night by means of a lantern or "jack" is a very different matter. It is a practice which we cannot too strongly protest against; and all true sportsmen unite in suppressing it. There can be no question as to the degree in which it affects good shooting. In certain Long Island waters the practice is carried on to

a deplorable extent. Immense numbers of geese, which might afford excellent sport during the day time, are driven away to other waters, because of the lights carried into the midst of them at night.

As often conducted, day shooting alone is almost sufficient to drive the birds to more congenial localities. But when they are persecuted at night with equal pertinacity, the climax is reached and the resident gunners must be content with impoverished shooting by reason of the indiscretion and avarice of others.

Decoying for ducks is one of the best ways, and often the only one, in which to capture the wary game. Particular pains are taken in the chapters of the present volume to familiarize the novice duck hunter with the right selection and employment of duck "stools," as they are termed in sporting technique. Upon a knowledge of the use of these chiefly depends his success in bringing the birds within range for obtaining shots.

"Tolling ducks," as it is designated in the South, is a very successful ruse sometimes resorted to by the hunter. It consists in so exciting the curiosity of the birds by waving a red flag as to cause them to swim

directly toward the spot, doubtless to investigate. If the sportsman is well concealed, the inquisitive birds will often approach to within a very few yards of him, being then shot as a result of their quest of knowledge. A dog taught to gambol about the blind sometimes takes the place of the waved flag, and brings the birds within shot.

Of all the methods resorted to by those who engage in duck shooting, sculling for wild fowl is, without exception, the most replete with enjoyment and fraught with pleasant recollections. While most other methods demand absolute stillness, sculling allows of ample movement, and has this advantage, that one is privileged to approach the game, whereas, in the others, one must be humiliated by maintaining patience until the game chooses to come within range.

The several above methods will be described at length in the chapters devoted to the subject.

Shooting from a battery is very generally practiced in waters of Long Island, where not prohibited by law. The battery is a box, 8 ft. long, $2\frac{1}{2}$ ft. wide and 2 ft. deep. It is fitted with wide doors, which proceed from every side, and lie flat on the water. The doors are so

swung that when the box is placed in the water the whole arrangement does not project more than an inch above the surface; and in ordinary weather no water can enter the compartment. After anchoring the battery in the middle of some bay or large expanse of water, decoys are thrown out around it, and the sportsman takes his position in it. A sail boat, or sometimes several, is hired to sail about and drive the birds up, that they may fly to the decoys, and afford a shot. Nothing betrays the presence of the enemy among them until the birds fly almost directly above him. The author knows of 450 ducks being taken in a single day by this method of shooting, when a man hunting from the shore would not have secured over ten or twelve birds at the most. That the employment of the battery is generally detrimental to the shooting of any locality there can be little doubt. When shooting is practiced from the shore alone, the birds may fly out into the middle of the bay and find both quiet for feeding and immunity from pursuit. But when battery shooting is allowed, the persecuted birds fly up and down the bay, and unable to settle at any spot without being shot, abandon the locality forever.

There seems to be a general belief that the wild fowl, like the wild turkey and the prairie chickens, formerly abundant in this section of the country, are becoming gradually exterminated. The author is of a different opinion, and while he will concede that the flocks of those birds that visit our coast in the fall and spring are smaller than formerly, he believes that the increase of that game in the Western States is proportionate to the Eastern decrease. In the Dakotas geese are so abundant and do such damage in the wheat fields that lanterns are lit and hung up at night to answer the same purpose as scarecrows in a cornfield; and men are also hired and armed to shoot these destroyers of the grain.

That all kinds of wild fowl are much more wary than ever before, and consequently are more difficult to circumvent and capture, no observing sportsman can deny. In former years men shot to kill, and not as is the case nowadays, to frighten and maim, scaring a hundred birds to every one killed. One wary duck in a whole flock may cause their flight long before the sportsman has approached close enough to secure a shot. Frequently in hunting we have seen an indi-

vidual bird take flight; and by sounding his alarm note, this one has caused the whole company to fly away, when otherwise they would not have become frightened until an opportunity to shoot was obtained.

Though generally sanctioned and permitted by law, spring shooting is very destructive to good sport in the following fall. The birds are often mated on their migration northward, and when the male or female is killed the survivor seldom takes another mate. Consequently there will be one brood less the following year than might be the case were the breeders permitted to reach the breeding grounds in safety. One bird killed in the spring is equal to three destroyed in the previous fall, as far as the future year's abundance is concerned. In autumn hunting the sportsman kills many wild fowl, which, if suffered to live, might die from natural causes, or fall victim to birds of prey during the winter. By their destruction, therefore, he does not appreciably decrease the following year's breeding results. But when he shoots a bird in the spring, he invariably lessens the number of those that would have engaged in the duties of incubation. Therefore, let laws be enacted prohibiting duck shooting at least during the months of April

and May ; and until such laws shall be enforced, let the hunter's killing in the late spring be tempered with discretion and mercy.

In localities where there are ponds or streams, the planting of wild rice will attract a large number of ducks, and often of varieties not seen in the neighborhood before. The address of houses providing the rice seed may be found in most sportsman's publications ; the cost is about one dollar per bushel. It is best sowed in the autumn, October being a good month. It should be put into water sufficiently shallow to admit the growth of the slender stalks above the surface. Planting in running water is very advantageous, for each year the current will scatter the seeds about, and thus promote growth over a larger area. In some localities the rank growth of wild rice thus introduced has closed streams to the progress of small boats. Some years ago, a ship laden with grain was wrecked off Great Egg Harbor, on the coast of New Jersey. For many miles around the waters were covered with the cargo, and ducks of a variety never before seen in the vicinity were shot in great numbers. They were sold for twenty-five cents a pair, the natives supposing them to be of a com-

mon kind. It subsequently developed that they were canvasbacks, and the venders had been greatly defrauded in receiving such a paltry sum for their capture. It may be assumed that a general distribution of grain on meadows frequented by water fowl would be productive of excellent shooting.

Some of the best duck shooting localities in the eastern section of the United States are found on and about the waters of the Chesapeake Bay and Albemarle and Pamlico Sounds. Excellent canvasback shooting was once had on the James River. Since 1879, however, the hunting bears no comparison with that of previous years. In the autumn of that year the wind blew for twenty-one days W.N.W. and the water freezing at very low tide, the grass on whose nutritious grains the birds subsisted, became fastened in the ice. A thaw coming on suddenly, the grass was torn from its roots and carried away. This affords an excellent example of the effect which the variety and abundance of the food grasses have on the variety and numbers of wild fowl frequenting a locality. At intervals of every seven years an increase is observed in the quantity of migrating game in particular parts of the country. This may no

doubt be attributed to a periodical abundance there of the corresponding aquatic plants and grass on which the birds subsist.

While the extinction of our larger game animals, such as the deer and caribou, and of such birds as the partridge, may be imminent, the remoteness of the breeding grounds to which the wild fowl have migrated for countless ages, to fulfill the duties of propagation, insures to the sportsman for many centuries yet to come the grandest, most captivating and unrivalled sport the world affords.



CALIFORNIA PARTRIDGE.

CHAPTER VI.

Outfit—Guns—Boats—Dogs.

IT is very essential that the sportsman who seeks success in wild fowling should be provided with a good outfit, suiting his tastes and requirements as closely as may be consistent with his purse and the extent to which it will be used. The latter consideration is by far the most important. An outfit for those who go into the marsh two or three times a year should not be so elaborate nor complete as that of the hunter who engages in the sport constantly during the autumn and winter months.

The guns used in grouse and rabbit hunting, though adaptable to wild fowl shooting, possess neither the range nor killing qualities necessary to the achievement of success. The 10-bore shotgun, weighing be-

tween 9 and 12 lbs., is the weapon *par excellence* for duck hunters. It should be chambered to receive brass shells to the best advantage, and then, owing to the increased diameter of the interior of the barrels, it will be equivalent to a 9-bore. Brass cases are vastly superior to those of paper manufacture in marsh shooting; especially is this the case in using the larger sizes of shot; for the pellets chamber more evenly and in fewer layers than is possible with the 12-bores. Moreover, they are less liable to jam, absorb less moisture, and as they prevent the escape of gas, shoot stronger than the paper cases.

The charge giving the best results with the above shells is 5 drs. black powder and $1\frac{1}{4}$ oz. No. 5 or No. 6 shot, whichever of the two is found to give the most even pattern. These are the sizes extensively used in the South, and though No. 4 is generally employed for duck shooting in the North, numerous old and experienced hunters prefer even so small a size as No. 7. The author is aware that many protests will be made against loading with such small sizes, and that even No. 1 and No. B will be used. They would be justified in their choice if game birds were not protected by

feathers and down nearly an inch through on some parts of the body. As it is, however, the smaller sizes are decidedly more effective. This statement is not based on theory, but on a series of experiments carefully conducted to determine the sizes meriting adoption in wild fowl shooting. The tests were the outcome of the author's repeated failures to kill ducks as readily with No. 1 as when using the smaller sized shot. The only explanation he could give for the circumstances was that while smaller pellets met with little resistance in passing through the feathers and reached the flesh with velocity little diminished thereby, the large shot spent their force in penetrating the feathers, and on reaching the body inflicted only slight wounds.

The skins, with feathers unremoved, were taken from the breasts of different ducks. Several shells were loaded, half containing No. B shot and the remainder No. 6. All contained the same measures of powder and shot. On discharging them at the skins, it was found that the No. 6 penetrated almost twice as many cardboard sheets after passing through the skins as the No. B. The No. 6 shot being small and displacing

little surface, passed through the feathers like needles, while the No. B might be compared to nails in their penetration.

For geese, No. 2 will be found quite as effective as BB, and the author recommends their trial before the latter are adopted.

The 8-bore should have barrels not less than 34 in., to insure the burning of the heavy charges of powder required, and may weigh 12 to 14 lbs. The load best suited is 6 drs. of powder and $2\frac{1}{2}$ drs. of No. 3 shot.

The 4-bore is at best a clumsy weapon, and its only advantage lies in a larger killing circle, bringing down ten ducks out of a large flock, where the smaller sizes would kill only half the number. It will shoot 9 drs. of powder and $3\frac{1}{2}$ oz. of shot. Thus charged, it will throw the shot into a 6-ft. circle at a distance of 100 yds. The capabilities of these weapons are summed up by the author of "Modern Shot Guns," who says:

"With a first-class 12-bore it is possible to get patterns of 255 in a 30-in. circle at 40 yds., and with the same charge and with a 10-bore gun it is not often that a better pattern is made, and 275 is an excellent average for a 10-bore duck gun, with the 10-bore standard

charge. When shooting large shot the 10-bores show a more marked superiority over the 12-bores.

“The 10-bore duck gun full-choked, weighing $8\frac{1}{2}$ lbs. and over, will make the pattern of 275 in a 30-in. circle at 40 yds. with 4 drs. of powder and $1\frac{3}{8}$ oz. of No. 6 shot.

“With $4\frac{1}{4}$ drs. and $1\frac{1}{2}$ oz. of No. 2 shot, pattern in 30 in. at 40 yds., 160 pellets, penetration 25 sheets of strawboard. Same charge, distance, etc., but No. 1 shot, pattern 135, 50 being in a center of 12 square inches; all pellets should be in a 25-in. circle at this distance—penetration 31 sheets of strawboard. At 60 yds., No. 4 shot, the pattern should average 78, and penetration be 18 sheets; with No. 1 shot, the pattern 60, the penetration 26 sheets.

“The 8-bore, with brass cases, standard charge 7 drs. and $2\frac{1}{2}$ oz. of shot. The light 8-bore, with 32-in. barrels, is suitable for a charge of 2 oz. of No. 6 shot; and with No. 6 shot should put about 400 pellets in a 30-in. circle at 40 yds. The 8-bore is, however, at its best with numbers between and including 4 and 1. With No. 1 a sufficient velocity is attained to kill ducks at 120 yds., and a certainty of killing at 100 yds. if the gun be held straight; at greater distances the pattern is necessarily

thin, and there will always be a risk of the bird escaping.

"With $2\frac{1}{2}$ oz. No. 4 shot at 40 yds. the pattern should average 300, and the penetration be equal to 34 sheets of strawboard; with No. 1 shot, pattern 220, penetration 40 sheets; at 60 yds. the penetration of No. 1 shot 34 sheets, at 80 yds. 24 sheets, at 100 yds. 16 sheets. The penetration of 7 sheets by one shot is sufficient to kill a duck.

"With paper cases, 3 drs. and $2\frac{1}{2}$ oz. of No. 1 shot, has given a pattern of 195 pellets, at 40 yds.; same charge and conditions, but brass cases, the pattern was 225."

As most of the shooting is done from a boat, and the gun has to be carried but little, if at all, heavy guns have not the disadvantages which would be experienced were they employed in grouse or rabbit shooting.

When large bores are used, it is well to carry a lighter weapon with which to kill the cripples and any single ducks that may afford a shot. Small-sized shot should be used for shooting wounded birds as they sit in the water, only a portion of their body being above the surface, requiring a close pattern.

The sportsman who hunts in sections where there are

streams and lakes of large dimensions, should be supplied with at least two boats, if a moderate degree of success, combined with pleasure and comfort, is to be secured. A small square-ended boat called a "woggy" is one of the greatest conveniences that can be possessed. Manufactured of very light boards, and being not larger than 5×3 ft., it can be dragged for considerable distances through shallow water and across meadows, thereby often dispensing with the necessity of following a natural waterway to reach one's destination. An oar-lock fastened in one end admits the use of an oar to propel it forward. From one to three dozen decoys can be carried in it, and being readily hidden on account of its small dimensions, it will be found suitable in shooting from a blind. Its chief advantages, however, are found when one is setting decoys out on the water. Instead of tugging to launch a heavy and cumbersome boat, the "woggy" may be pushed into the water and again brought out on to the bank with the greatest ease and a minimum expenditure of time. In shooting around ice holes in the winter, to which the sportsman must walk over the frozen surface of a pond or river, the "woggy" will be found invaluable for re-

trieving the birds that have fallen out of his reach. As the "woggy" may be purchased for \$4 or \$5, the author would advise the wild fowl shooter to secure one; the satisfaction and increased pleasure through its use fully warrant the expenditure.

The other boat to be obtained is known as the Barnegat sneak boat. It is provided with a sail and folding centerboard; and the pleasant excitement of sailing may thus be combined with that of hunting. When the winds are still, the oars are at hand, and one may start an ash breeze of his own. Covered with a deck it may be thatched with sedge or hay and utilized as a blind, which has the great advantage of being shot from at any point when good shooting is obtainable. The bottom of the boat should be spoon-shaped, thereby enhancing speed and also facilitating its dragging on the land with greater ease. A round hole is bored in the stern, about 3 in. above the water mark, and well covered with rubber. By inserting an oar through this opening, the sportsman, with a little practice, will be enabled to propel the boat forward in a way known as sculling. With a little experience this may be performed while the gunner is lying on his back in the

boat; and if properly thatched with grass, or covered with cakes of ice, the craft may approach to within range of a flock of ducks.

The novice may learn how to propel a boat by the means of sculling, if he will ask any old boatman to teach him; or, by following the directions here given he can accomplish it without other instruction. Push the handle of the oar through the sculling hole. Move the handle as far to the right of the boat as is possible and see that the blade of the oar lies about six inches down in the water and parallel to its surface. Turn the blade quarter-way round to the right, shove the handle vigorously to the left, and in such a manner that the blade will remain equally distant from the surface of the water throughout. When it comes to a stop, turn the blade half-way round to the left and move the handle back to the right, always keeping the blade of the oar submerged at the same distance below the surface. This motion will impart considerable momentum to the boat, and the novice will be surprised to discover how easily and rapidly he can proceed.

A four-pronged anchor should be provided, if it be desired to anchor in deep water, when there is danger

of being blown out to sea, or to secure the boat to the shore when not convenient to draw it out on the land. A small compass might also be carried, to acquaint one with his course during the presence of heavy fogs. A canvas covering to cover the hatchway of the boat when not in use, is an indispensable article for excluding rain and snow. At night the other boats should be turned over on shore, for there is nothing more discomforting than to find one's boat in the morning half-full of snow or rain.

Boats should be painted yellow in the fall, to resemble in color the grasses and sedges at that season; while for winter shooting they should be white, to assimilate with the surrounding snow and ice.

The use of dogs in duck hunting depends on whether the shooter generally employs a boat or hunts along the margins of creeks, where the game, should it drop into the water, or on the opposite shore, would be beyond reach. Under such circumstances a well-trained retriever is of great utility. A cross between a Newfoundland dog and a setter, on account of its keen scent and its power of endurance, would be preferable. When the shooting is from a boat, a smaller animal,

such as is obtained by the breeding of a beagle and a spaniel, is more desirable; a large dog occupies too much space and is more difficult to conceal. In following the ducks through the reeds and over the water, a dog must be particularly endowed with strong scent, together with keen faculties of sight and hearing. Again, he must be able to enter the icy water and withstand the chilling blasts of winter. The Chesapeake dog answers all these requirements in a high degree, its coat being so thick that one's fingers can penetrate it with difficulty. The cost of good dogs of such a description is rather high, and they are, therefore, not extensively used. The Newfoundland dog, owing to its partiality to water and to the ease with which it is trained, will be found suited to retrieving ducks when one is shooting along the shore or on the meadows. Its large size renders it an undesirable boat mate.

The sportsman's wants should be studied, and from time to time such additions should be made to his outfit as promise to augment his comfort, pleasure and general success in engaging in the pursuits gratifying to his tastes and inclinations.

CHAPTER VII.

The Construction of Blinds and Decoys.

THE kind of blind to construct in wild fowl shooting depends on the kind of birds it is intended to deceive, as well as upon the location in which it is built, and the season. A structure suited to shield the sportsman from the detection of broad-bills and butter-balls, which fly generally close to the surface of the water, would prove a disastrous failure as a place from which to shoot black ducks and geese. Then to conceal ourself on a sand bar, where a heap of sedge or sticks would excite immediate suspicion, might be very different from finding a cover where sedge grows in profusion. And again, during the fall there always exists an abundance of grasses in which one can hide himself, which on the first cold night become frozen

in the ice and are carried away when a thaw arrives. The best blinds are always those that are built without appreciably altering the appearance of a place. When a rock or a heap of driftwood can be found commanding a good shooting spot, it is wiser to hide behind it than to undertake the construction of an artificial cover. In the fall, before the ducks have been persecuted, a Barnegat sneak boat may be grounded anywhere, and by placing grass over the deck and about the sides, excellent shooting may be had therefrom. If pulled into the sedge, it should be from a direction opposite that past which the ducks are expected to fly, thus preventing an opening through which its presence can be detected.

Where birds are in the habit of flying over sand bars, and reaches of sand where there is no sedge or other suitable provision for a blind, a large hole may be dug in the sand. Into this should be sunk a box sufficiently large to admit the sportsman in a prostrate position. At low tide, excellent sport may be obtained by taking one's position in the sunken box after it has been bailed out. It is essential that it be so constructed that the flight of the birds will be such as to render their shoot-

ing easy, and not necessitating firing directly over or behind one's head.

Wild fowl must be in the habit of continually frequenting the same locality, as they immediately notice any new object, such as a boat in the vicinity, while scows and even large structures which have remained in the place for months, they seem alike oblivious of and indifferent to. When a substantial and permanent blind is built, the advantage will be readily appreciated of constructing it early in the season, and not using it until the ducks have become accustomed to its presence. It should be constructed closely after nature, and be as low and as simple as may be consistent with comfort and easy movements of the occupant.

On shoal water meadows, where ducks congregate in large numbers, the following blind will be found to possess great advantages. Drive poles in two parallel lines, 4 ft. apart, into the sand for a distance of about 12 ft. Branches of evergreen should then be intertwined between them, and one end closed by the same process. Into this structure the boat may be drawn, and here, while one does not experience the same discomfort sitting in a boat as on the ground or in the

narrow confines of a battery, he is practically hidden from the birds. The opening through which the boat enters may be closed if desired. It should present its side toward the course where the birds are accustomed to pass, thereby affording two or more occupants equal advantages in obtaining shots. The blind may be used for decoying from, or for shooting the birds in their flights. If the latter, its sides require to be rather high, thereby reducing the chances of detection by the fowl, which then fly higher than when approaching decoys. The same structure is sometimes built with a platform in the middle, upon which to stand. This, however, makes a rather elaborate affair and hardly warrants the time and trouble necessary for its erection.

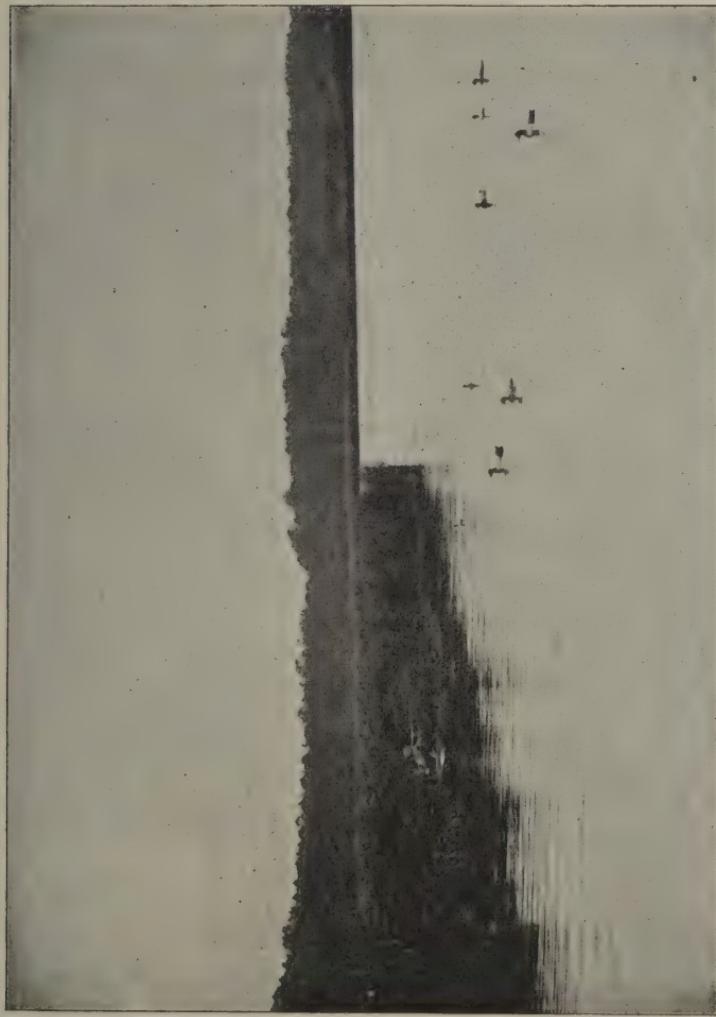
Toward the latter part of summer it is an excellent plan to erect blinds and place sunken boxes on points and localities on the meadows where water fowl either congregate or are in the habit of flying over. But even then the sportsman is not assured of finding the blind vacant, no matter how early he may visit it. There are hunters who will visit a favorite hunting ground and sleep in a blind all night, to forestall others and monopolize the shooting the following day.

In Canada, on the St. Lawrence River, the first person reaching a blind—whether he be the owner or not is immaterial—may shoot from it until he chooses to vacate. This arrangement may seem illogical. But when one thinks how easy it would be for any one to erect blinds on all the best shooting points, and by their possession be enabled to go and shoot, even when some more active hunter had anticipated him, the justice of the case will appear more evident. Then, again, how are you to determine if it be not some unscrupulous pretender who claims ownership, and seeks to relieve you of that, which by priority of occupation more rightly is yours? Confusion would be rife, and many would be claiming that which they were not entitled to.

Decoys.

Any one moderately skillful with tools can manufacture his own decoys. They need be neither very elaborate nor life-size, though the more closely they approach the appearance of the natural bird the deeper will be the sportsman's satisfaction in owning them, and the greater his chances of success when they are used

SHOOTING OVER DECOYS.



in hunting. The chief requisite is to paint them the color of the bird they are modeled after, the markings being slightly exaggerated. The size, too, of a fourth larger than the original will attract the flocks from a considerably greater distance.

The only tools required for constructing them are a saw, a draw-knife and an auger. White pine is the best material, and this should be procured 2 in. in thickness, and as wide as the model it is to be shaped after. Two pieces should be cut the required length, and joined by boring two holes through them at corresponding points and then plugging them together. If nails are used instead, the draw-knife would be liable to injury in striking one. The block should then be rounded off to the required shape with the draw-knife, and later smoothed with a piece of glass. The heads are the most difficult part to cut out. Much work may be saved by boring a hole in the wood at the base of the duck's bill and sawing away as much wood as possible before using the knife. The neck should be short and the head be so shaped as to give the appearance of perfect contentment and happiness, otherwise it may only tend to frighten the birds away.

The paint employed should be when dry of a dull color, as if it is glossy the sunlight causes it to shine and glisten, a condition very fatal to good hunting. A lead weight should be nailed on the bottom, causing the decoy to remain upright in the water. Decoys are often sold without lead, and these constantly turning topsy-turvy in the water give rise to much discomfort and annoyance. They should be provided with lead.

When decoys are to be anchored in channels, and where three or four are fastened by the same cord, an ordinary weight is not sufficient to hold them. Anchors made of lead, and in shape patterned after an umbrella will be found effective. If made of metal, and reasonably large, they will hold half a dozen decoys on one string. Any blacksmith can make them of iron, which will answer the same purpose.

When a large number of decoys are to be set out, much time and trouble may be saved by the following contrivance: Procure two slats, and on one end of each nail a decoy. Fasten the two other ends together by a screw, over which place another decoy. When the contrivance is placed on the water, the two rear decoys may be separated by 2 or 3 ft., and the whole secured by one

cord fastened to the screw uniting the laths. When laid in the boat the ends may be brought together, thereby occupying but a small compass.

The market is full of decoys of all prices and descriptions. Hollow cedar decoys, while sitting high in the water, are apt to sink on being punctured by shot. Tin decoys, for the same reason, are even more objectionable. A few have been introduced, which are covered with natural feathers, and have a wonderfully life-like appearance, but these possess no great advantages over the others. A few years ago an inflatable rubber decoy met with considerable favor among those who were required by the nature of their hunting to carry them long distances. They are very light, and when collapsed may be packed in very small compass and easily carried.

It is not necessary to use a differently painted decoy for every variety of duck. This is a very favorable circumstance, as otherwise, in localities where the ducks consist of many kinds, one's shooting would be necessarily meagre when decoying. Black duck decoys will answer admirably for attracting mallards, red-heads, gray ducks, coots and spoon-bills. Broad-bill decoys

will answer for butter-balls (dippers), whistlers and canvasbacks. Sheldrakes and widgeons will come to either kind, but the former are best decoyed by the broad-bill stools. As previously stated, the markings should be slightly exaggerated, the white blotches on the wings of dippers, whistlers, etc., appearing well defined on the stools. Thus it will be seen that one requires only two kinds of decoys, viz., black ducks and broad-bills. As a few black ducks thrown out in the water are almost as effective as a large number, a dozen or fifteen will be found sufficient. It is different with the broad-bills, dippers and whistlers. The greater the number of decoys anchored out, the greater will be the chances of success. At least 50 should be kept, and even 200 and more are sometimes used. The average sportsman, however, will not care to handle such a number, being content with a couple of dozen, especially when the water is bitterly cold, and the cords and anchors are frozen immediately on their removal from that element.

By passing the cord attached to each decoy through a pulley fastened to a weight at the bottom of the water, and running the end into the boat, the decoys

may be made to dive by alternately jerking and releasing it. This often serves to attract the ducks when other means fail, and it is, therefore, worthy a trial.

Live decoys, though difficult to transport and set out, are great aids in black duck and mallard shooting. Our domestic mallard will answer the purpose admirably. Several active females, with a capacity for quacking, should be anchored in the water where not too deep for the sportsman to wade. Otherwise, through their diving their recapture from a boat may prove impracticable. A piece of leather or flannel should be wrapped tightly around the leg and a cord fastened thereto. The drake may either be left at home or retained in the blind. The ducks, deprived of their lord, will keep up an incessant calling, and the air will be full of invitations in duck language for their wild brethren to visit them. In shooting great caution should be exercised in killing the wild, and not the domestic fowl. The greatest inconvenience is incurred in carrying the live birds to and fro. A basket with a folding cover will be found most desirable for this. Six or eight will be found an ample number, a few wooden decoys scat-

tered among them serving to increase their appearance. The remarks on geese decoys have been reserved for the chapter devoted exclusively to the sport in which they are used, and therein the reader may find full directions for selecting, fixing and setting them out.

The manner of setting out duck decoys will be found exhaustively treated in the various chapters on wild fowling where they are employed. In the foregoing paragraphs we have endeavored only to explain how they might be constructed, the different novelties in stools on the market, and what kinds and quantities should be obtained.

Duck Calls.

Many sportsmen have been heard to declaim vehemently against the advantages to be derived from the use of any artificial contrivance made to imitate the call of the wild duck. The author has been very successful in their use when employed in certain kinds of hunting, and can therefore readily attest their value in bringing the birds within range. The black duck call is the most successful of these. It consists merely of two pieces of wood, hollowed in the middle, with a flat sheet

of tin between them. They are held together by a rubber or horn tip. It is only necessary to blow in one end when a resonant quack is produced. To prove successful they must be called with even notes, and not too loud, as the ducks quack when contentedly engaged in feeding. The sportsman carrying one of these callers may conceal himself at any favorable point, and by repeatedly emitting quacks by blowing into the mouth of the call, may bring many ducks within range, which, had he not employed the device, might never have been seen. A call for broad-bills has been on the market for years, but, having had no experience in its use, the author is unable to express an opinion of its merits. Goose calls will be considered under another heading.

A great many veteran duck hunters rely on their own power of mimicry, and can with equal facility call a black duck or a goose. It is an attainment, however, not easily acquired, though doubtless of great value, and the sportsman will be probably compelled to resort to artificial means for securing the same results.

CHAPTER VIII.

Broad-Bill Shooting.

IN the West this species is generally known as the blue-bill, in the South it is called scaup duck, while in the Eastern States it is designated by the name here given it. It makes its appearance in the waters of Long Island Sound and the Great South Bay toward the middle of October. A few remain during the summer; these probably have been crippled in the previous spring's shooting, and though able to breed in the marshes about these waters, are unequal to the long and protracted flights necessary to reach the northern breeding grounds. The broad-bills remain throughout the winter, migrating again to the north at the approach of warm weather. After the 20th of April, unless the spring is unusually backward, few are found in

the localities where they were formerly abundant; to gratify his sporting propensity the gunner must then resort to snipe shooting in the absence of wild fowl.

The broad-bill is 18 in. in length and 29 in. in extent; bill broad, the same length as the head, and varying from a light blue to a dark lead color; iris yellow; head of moderate size, covered with feathers of a darkish green; back and scapulars white, breast black, primaries and tertials brownish black; secondaries white with black extremities; wings short, narrow and pointed; belly white, feet grayish blue; the webs and claws black. In weight it varies from 1 lb. to $1\frac{1}{2}$ lbs., some very large and fat birds attaining even 2 lbs.

In marking, the female agrees closely with the male, but has the glossy green on the head, and it has a broad patch of white on the forehead.

Unlike the black duck, the broad-bill feeds by day, visiting the channels of rivers and bays in quest of shell-fish and aquatic plants, for which it may be seen constantly diving. On first returning in the fall it is easily decoyed, and excellent shooting may be obtained without any great expenditure of trouble. As the season advances, however, the birds become extremely wary,

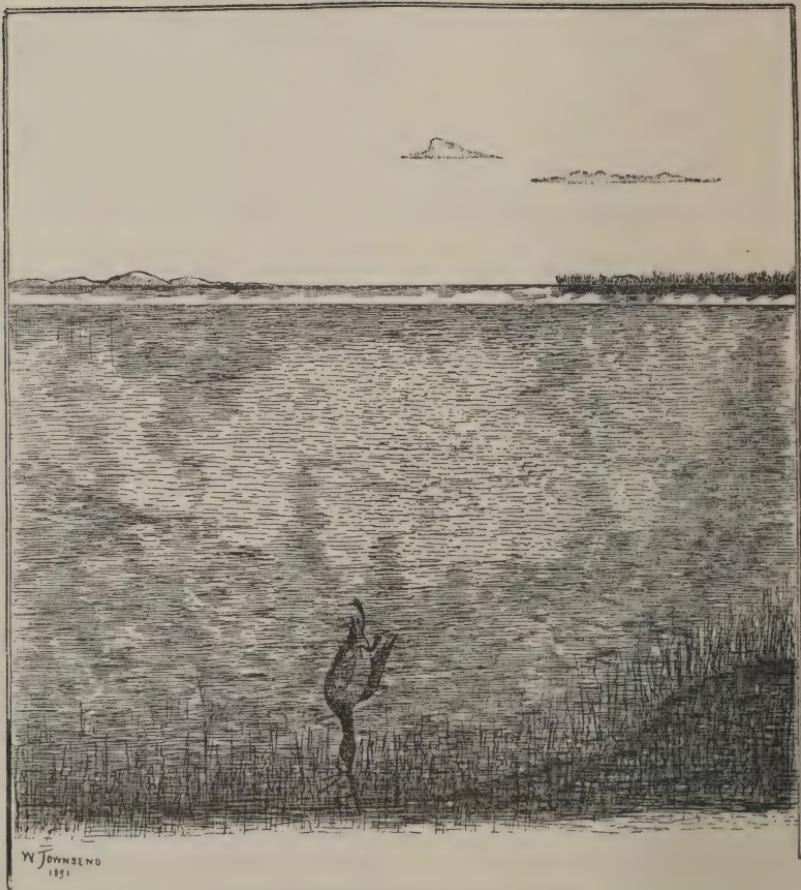
and the sportsman is often perplexed in his endeavors to bring them within gun shot. Often at such times thousands may be seen sitting in the water at a considerable range from shore. Though frequently caused to take flight, they fly at such a range from shore and show so little inclination to visit the decoys, that the endeavor to obtain a shot is for the most part fruitless. Under these conditions battery shooting may successfully be resorted to, provided there are sailboats cruising in the locality to prevent the birds from lighting and remaining in one spot for any length of time. The method is described to some extent in the chapter entitled "Comments on Wild Fowl Shooting."

It is on raw, cold days, when the wind blows a gale, and the waves are crested with foam and beat sullenly on the shore, that the undaunted sportsman reaps his reward. At such times the ducks congregate in coves and under the banks to the lee of the wind, the water here being smoother than where the wind ruffles its surface unchecked and undiminished by any barrier. This habit is disastrous to their safety, for at such times ten ducks are killed to every one when the weather is mild and they sit far out from the shore.

The larger the number of decoys set out, the greater will be the chances of success. The sportsman must remember that the birds are invariably attracted by the largest flock, and if he anchors out only a dozen decoys, and twenty broad-bills should be swimming out from the island, the passing birds will be apt to approach the twenty rather than the twelve. A good plan when decoying ducks is to carry a small-bore rifle, or a few buckshot cartridges, as then any flocks swimming out of range may be dispersed. Otherwise the birds, that may have been allured to within range, will descend to these distant groups, and ruin one's chances of success.

When swimming in the water, broad-bills generally lengthen out in long lines, contrary to the fashion of dippers and whistlers, which sit closely huddled together. The decoys should be set out as closely as possible, in resemblance of the natural birds' positions. They should begin with a single bird, and gradually widen out toward the leeward, placed like ten-pins in a bowling alley. The decoyed birds will then fly where they are thickly set, and follow them up to where they narrow to the one. No two individual stools should be placed nearer together than 4 ft. Otherwise,

from a distance, they will appear as one duck, and be much less prominent. The great majority of sportsmen err in placing the decoys too far away from the blind. When this is done an effective shot is almost impossible, unless a bird flies closer to the blind than the stools are; and often shot after shot is fired without effect. The nearest decoy should be about six rods from the sportsman's place of concealment, while the furthest must not be over ten rods. If they are set out as directed, the incoming ducks will follow up the group to its head, and thereby afford a shot not longer than six rods. In the earlier part of the season they will generally alight among the stools; and by getting two or three of them in a line and then firing, better results are obtained than when one discharges the gun as they fly. On rising, they disperse themselves immediately, after the fashion of black ducks, and it is rare that you may kill more than one with each barrel. The excitement and satisfaction, when they have thus been bagged, is so much in excess of that experienced when killing them on the water, and is so decidedly more sportsmanlike, that no one should hesitate a moment in choosing the better way.



W. J. TOWNSEND
1851

HOW SOME DUCKS ARE LOST.

When crippled and dropped into the water, a broad-bill must immediately be shot again before regaining its senses and disappearing beneath the surface. After the bird has once dived it is almost as futile an undertaking to recapture it as it would be to catch a young quail in a wheat field. They often remain submerged, swimming beneath water for at least ten rods, and then protruding only the top of their bill to breathe fresh air. The author has frequently seen them swimming beneath water, with only half an inch of the bill visible above the surface. It is claimed by truthful gunners that the birds often dive, and clinging to plants or weeds on the bottom, actually commit suicide. The author has frequently seen them, when wounded, dive, and as far as he could determine, they remained beneath the surface.

The wounded broad-bill is credited with stopping the flow of blood from the holes where the shot has entered, by closing them with feathers plucked from its body. However true may be this supposition, the author must acknowledge to having plucked ducks and found the shot wounds sometimes closed by this ingenious, though almost incredible means. But when

we consider with what wonderful instinct certain birds and animals evade their enemies and provide themselves with means necessary for subsistence, it will not appear less impossible to accept this as true.

On approaching the decoys the fowl often fly with the wind, pass over them and go several rods beyond, then swing suddenly around and come into the midst of them in a manner that must cause the coolest man a tingle of satisfaction and excitement. When they are about to light, the wings are spread out to their full extent, and the birds drop suddenly into the water. Unless the sportsman has watched them carefully, he will be apt to mistake one of his stools for the natural bird, and, under that delusion, riddle it with shot.

The broad-bill gunner should set out his stools and have everything in readiness at the first indication of day. Otherwise he may frighten away several birds that might have afforded a shot. About half an hour of good shooting is obtained immediately after daylight, and the boom of guns may then be heard on every side. From that time, generally for two or three hours, there is a lull in the sport, excepting for an occasional shot at some stray bird that swoops down among

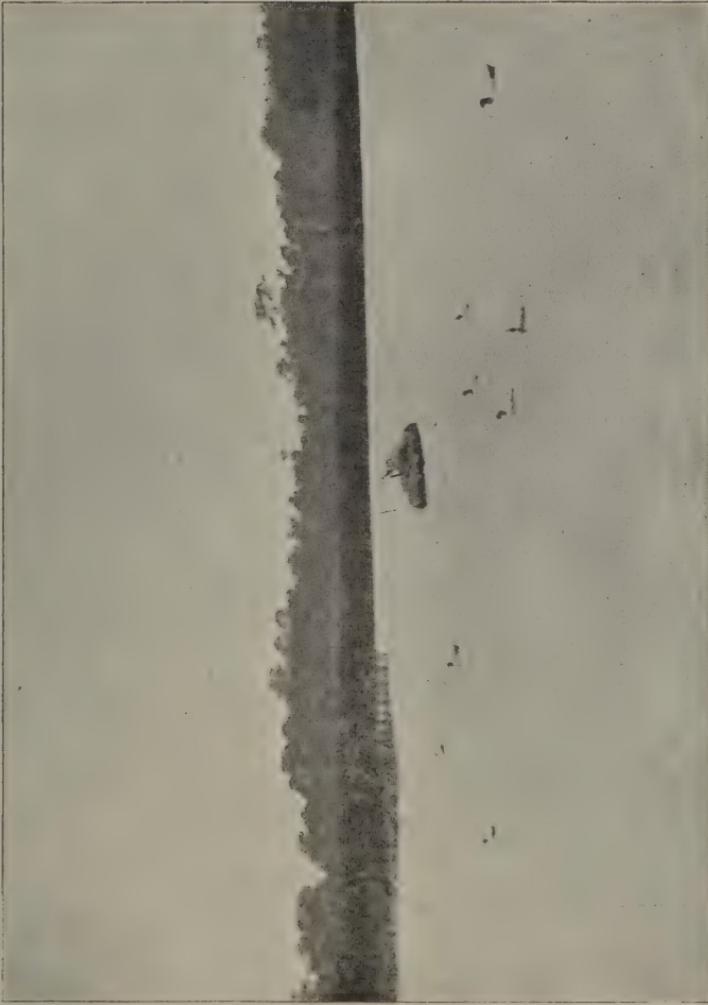
the decoys. Unless the day be cold and blustering, or it be early in the season, as a rule, the shooting will be poor after 10 o'clock. Then the decoys may as well be picked up, and the sportsman may visit the fields or woods in quest of quail or grouse. At 4 o'clock the activity of the birds is renewed, and good shooting may again be had.

The same ruse as that practiced in canvasback shooting may be employed with broad-bills. A red flag tied on a stake driven into the mud will excite the curiosity of the birds, and lure them to come within gun shot. Large flocks are often decoyed, or, as it is termed, "tolled in" by this unique and simple means, when all other stratagems resorted to have failed.

The shooter may also conceal himself at a point over which they are in the custom of flying to and fro between their feeding grounds. This mode of wild fowling, however, is less satisfactory than the methods already mentioned, but being practicable without the use of decoys or of a boat, it has its advantages. The morning and the later part of the afternoon are the best hours in which to practice

it, for at such times the birds are more active than at others, when they are engaged in feeding in some favorite haunt.

The flesh of the broad-bill is rich and juicy, and while it does not equal either that of the red-head or the canvasback in delicacy, it is regarded with esteem by the lovers of toothsome food, and in consequence commands a fair price in the markets.



SCULLING FOR DUCKS.

CHAPTER IX.

The Golden-Eye and Butter-Ball.

THESE birds resemble each other so closely in appearance and habits that it is not thought necessary to treat of them in separate chapters. They arrive along the coast in the latitude of Long Island about the middle of October, and are found also on the lakes and bays of the interior.

Feeding chiefly on shell-fish, shrimp and small fry, their flesh is inferior to that of those birds which subsist only on grasses and their grains. The males of both varieties are attired in gorgeous colors, and almost equal the mallard drake in its rare beauty of plumage. They fly for the most part in flocks of from six to thirty, and decoy with greater readiness than any of the other varieties of ducks. Frequently they will alight to

stakes protruding above the water's surface, which at a great distance might vaguely resemble ducks. With them, as with the broad-bill, the greater the number of decoys, the more certain will be the sportsman's chances. Unless very wild, they generally alight among the decoys, and then if the boat be gently tapped with the oar, they will bunch together. The author knows of an instance, when by taking advantage of this weakness on their part, the sportsman secured a whole flock of nine birds with one shot.

They may be hunted in precisely the manner described for shooting broad-bills in another chapter, and it will be unnecessary again to describe those methods. If a wounded bird has been only wing-broken, it will dive to great depths, and the attempt to recover it will prove an almost hopeless task. By crawling within fifteen or twenty rods of a flock, and when they dive, running within range of the place where they disappeared from view, the sportsman frequently succeeds in killing one or more on their re-appearance on the surface.

The Golden-Eye.

Description.—Length 19 in., extent 29 in., average weight 2 lbs.; the bill is black, short, rising considerably up in the forehead; the plumage of the head and part of the neck is somewhat tumid, and of a dark green with violet reflections, marked near the mouth with an oval spot of white; the irides are golden yellow; rest of the neck, breast and whole lower parts white, except the flanks, which are dusky; back and wings black; over the latter a broad belt of white extends from the middle of the lesser coverts to the extremity of the secondaries; the exterior scapulars are also white; tail hoary brown; rump and tail coverts black; legs and toes reddish orange; webs very large, and of a dark purplish brown; hind toe and exterior edge of the inner one broadly finned; sides of the bill obliquely dentated; tongue covered above with a thick velvety down of a whitish color.

The full-plumaged female is 17 in. in length, and 27 in. in extent; bill brown, orange near the tip; head and part of the neck brown, or very dark drab, bounded below by a ring of white, below that the neck is ash, tipped with white, rest of the lower parts white; wings

dusky; six of the secondaries and their greater coverts pure white, except the tips of the last, which are touched with dusky spots, rest of the wing coverts cinereous, mixed with whitish; back and scapulars dusky, tipped with brown; feet dull orange; across the vent a band of cinereous; tongue covered with the same velvety down as the male.

The young birds of the first season very much resemble the females, but may generally be distinguished by the white spot, or at least its rudiments, which marks the corner of the mouth. Yet, in some cases, even this is variable, both old and young male birds wanting the spot.

This bird may also be distinguished by the vigorous whistling of its wings as it passes through the air. For this characteristic it has often been called the whistler. It breeds in the country about Hudson's Bay and is said to build its nest in the hollow of a tree or stump after the custom of the wood duck.

The Butter-Ball.

Description.—The butter-ball is 4 in. in length and 23 in. in extent; the bill is short, and of a light blue or

leaden color; the plumage of the head and half of the neck is thick, long and velvety, projecting greatly over the lower part of the neck; this plumage on the forehead and nape is rich glossy green, changing into a shining purple on the crown and sides of the neck; from the eyes backward passes a broad band of pure white; iris of the eye dark; back, wings and part of the scapulars black; rest of the scapulars, lateral band along the wing and whole breast snowy white; belly, vent and tail coverts dusky white; tail pointed and of a hoary color.

The female is considerably smaller than the male, and entirely destitute of the tumid plumage of the head; the head, neck and upper parts of the body and wings are sooty black, darkest on the crown; side of the head marked with a small oblong spot of white; bill dusky; lower part of the neck ash, tipped with white; belly dull white; vent cinereous; outer edge of six of the secondaries and their incumbent coverts white, except the tips of the latter, which are black; legs and feet a livid blue, tail hoary brown.

This bird is called butter-ball from the great corpulence it attains during the winter; also the buffle-headed

duck, probably from the disproportionate size of its head. Its only note is a short quack at very rare intervals. Its breeding habits are like those of the preceding species; it resorts to the solitudes about Hudson's Bay, and builds its nest in hollow trees.

CHAPTER X.

Black Duck Shooting.

OF all the varieties of wild fowl visiting the marshes in our Eastern States, the black or dusky duck is the wariest and most difficult to approach, and calls for the sportsman's utmost skill and cleverest stratagem. While they are found in great profusion in all the salt-water meadows and tidewater streams from Florida to the New England States, in the West they occur only on rare occasions, and then as wanderers from the main body. As they are but partially migratory, many are bred throughout the extent of our coast, and those which seek a colder climate at the advent of spring, return in September. It happens, then, that about the first shooting the sportsman obtains is afforded by the black ducks. They feed chiefly on shell-fish and

small bivalves which are abundantly found along the sand beaches; and their flesh is less esteemed than that of most other ducks. There are, however, those who find it most appetizing; and while the market price in New York is small, in Montreal it commands a high price and is regarded as a *bon morceau* among the inhabitants.

The flight of the black duck is swift and stately; and the several modes of taking them are varied and engaging. The wild weird scenery of the marshes, amidst whose solitudes their pursuit is followed, yields an added charm to the sport and renders it fraught with romance and enthusiasm.

The black duck is 2 ft. in length and 3 ft. 2 in. in extent; the bill varies from a dirty yellow to a dark greenish ash, formed very similarly to that of the tame duck and nearly of the same length; irides dark; crown dusky brown; remainder of the head and greater part of the neck pale yellow ochre, thickly marked with small streaks of blackish brown; whole lower parts deep dusky, each feather edged with brownish white; upper parts of a deeper color; the outer extremities of nine of the secondaries bright violet blue, forming a

spot admired for its beauty; under parts of wings white; legs varying from brown to a dark yellow.

In weight they rarely reach 3 lbs., though at times they exceed that. Those that have migrated from some distant point are always thin and often unsuitable for food, but in a few days after their arrival become very fat. The abundance of the natural food on which they subsist has much to do with their condition, and often in the winter when the meadows are frozen over with a thin skim of ice, they rapidly lose their former plumpness. It is extraordinary how rapidly a duck will grow fat when there is an abundance of the grasses or molluscs on which it feeds.

When feeding, the black duck never dives, but when wounded will do so with wonderful agility, remaining submerged until it has swum to some sedge in which it conceals itself with great skill. This the author had occasion to discover with much chagrin. He had always been of the opinion that they never dived; and once, on dropping one into the water at close range, he desisted from shooting it for a moment, through fear of tearing it too badly. He had cause later to regret his inaction, for the bird immediately dived, and no amount

of searching along the bank could disclose its position. When wing-broken and dropping into the grass they generally skulk, seeking rather thus to elude pursuit than by running. If he has patience and perseverance enough to continue his search, the sportsman will probably in the end be rewarded by discovering the duck with the top of its beak protruding above water.

For two very obvious reasons, in this style of shooting decoys are not so available as in the shooting of other kinds of ducks. The first reason is that they are shot mostly in the hours of twilight, when the presence of stools on the water would not be readily observed; and the second is in the reluctance with which they approach any imitation of their own kind; or, for that matter, even the genuine birds themselves.

In cold blustering weather, when winter gales and dense snow storms come over the marshes, the ducks will sometimes retreat to the meadows in search of shelter. At such times they fly near the ground, and owing to their habit of flying against the wind, afford an easy shot. Here decoys may be used with success.

The suitable point in which to set out the decoys is where the birds are wont to alight, and not the spot

over which they fly. To select the latter place would prove very uncompensating labor, for the ducks will rarely diverge from their own line of flight to visit their brethren, however inviting the spot in which these are sitting. Black duck decoys should never be set in a channel, since the birds they imitate are in the custom of lighting and feeding in shallow water. The locality in which they are anchored must also be one which has grass in which concealment may be found, or by which a blind may be easily erected. Natural cover is always preferable to any artificial means of concealment. The stools should be set out at such distance from the marshes that they may be discovered by the passing flight of birds from any direction without it being necessary for them to be directly above the spot to detect them.

It is not necessary to use so many decoys as when shooting other kinds of ducks, six or eight stools answering as well as twenty. Large flocks will rarely come to decoys, preferring themselves to find a roosting place for the night, and not being satisfied with that chosen by others of their tribe. The blind should always be placed to the windward of the decoys, for the

ducks invariably approach them from the opposite quarter, and should the sportsman conceal himself otherwise than as directed, he would be more liable to detection as the birds fly by. A very appropriate blind may be made by thatching the Barnegat sneak boat with sedges and then lying in it on one's back. A duck call should be carried; birds that otherwise would pass without heeding the decoys, may, by judicious calling, be brought within range.

Very good sport may sometimes be had by "crawling upon ducks." In order that one may approach within gun shot of a bird sitting in a meadow or swimming in some pond hole, it is essential that there be cover, either grass or a bank, which will shield one from observation. Often has the author wiggled himself through sedge and water and dirt to secure a shot at some coveted black duck as it sat contentedly in the water, unconscious of all danger. While depending chiefly on their keen eyesight for detecting an enemy, their scent and hearing are wonderfully acute. One should therefore approach in the face of the wind, when the chances of success will be greatly heightened. In rising, a flock of black ducks disperse themselves so

suddenly, that by flushing it is rarely that over three or four are killed out of a hundred. It is therefore recommended to shoot while they still swim in the water, where a well-directed charge will often kill a large bag of game.

A method known in sporting parlance as "flight shooting" is, however, the most successful mode by which to hunt these wary and sagacious birds. It consists in shooting the game as they pass to and fro from their feeding grounds. During the day, except in inclement weather, the dusky ducks fly out into the bays, sounds or ocean, as one or the other may be most accessible from their feeding grounds, and there ride lazily on the waves. The greater number then repose, several sentinels always remaining awake to sound the alarm at the first approach of danger. To hunt them at such times is, of course, out of the question, there being no shelter to conceal one while getting within range. At sundown a few of the less timid rise and fly into the marshes to feed on snail shells and molluscs. At intervals of a few minutes others follow, and detached flocks may be seen, either at great heights,

winging their way to some secluded pond or stream, or occasionally dropping down into the meadow. The greater number fly low, being in quest of a roosting place for the night, and consequently to any one beneath them an easy shot is generally assured. The route which they follow depends upon the direction of the wind, and perhaps upon the amount of shooting practiced, which, if very constant in any particular spot, may cause a slight change in their course of flying. To discover a point over which they enter the marshes is no easy matter, as this will not be the same one on all occasions, for the reasons just noted. While they disperse over the whole extent of a marsh, they generally follow one course well into it before separating. The experienced hunter often goes out several nights, moonlight being preferred, without any gun, giving his whole time and attention to determining the best spots from which to shoot under different weather conditions. When these have been fixed on, good shooting is assured.

It is a decided advantage to shoot from a point so situated that when the game is killed, it will fall

into the water or upon open ground not overgrown with sedge and meadow grasses, in which it would be exceedingly difficult to retrieve the birds, even though they might be mortally wounded. If left until the following day, the probabilities are that the owls and muskrats will have eaten their bodies.

As has been observed, decoys are of little avail in the evening, owing to the few minutes in which they can be seen in the deepening gloom. The author frequently sets six or eight out in the water, not because any superior shooting is likely to accrue, but more because of the pleasure he realizes in looking down upon them, and because, too, of a certain companionship which their presence seems to afford. In anchoring them out in the water at such a time, it is important that they should lie to the west of the sportsman. He will thereby receive the benefit of the last rays of the sun, to enable him to see the decoys and any ducks hovering above or dropping into the water at their side.

At times a duck will drop in among the decoys, and, try as he may, the gunner cannot distinguish it from the wooden imitations. The author has

met with several instances of this kind, one in particular, which caused him much disappointment and some amusement. With a companion he had been watching the stools, when, more for diversion than anything else, he counted them over. Imagine his surprise and satisfaction on finding that there was one in excess of the number set out. He whispered the discovery to his companion, and both of them tried to distinguish the intruder. But to no avail, until in sheer desperation at being thus mystified a slight tap was given with the gun. Immediately the air resounded with violent quacking, and a large black duck glided swiftly and with much splashing from the water. Four barrels broke the stillness; the echoes reverberated on all sides; but the duck, with a triumphant quack, disappeared in the darkness. It is an advantage frequently to count one's decoys, for so closely do they resemble the original, to distinguish the difference between them is not an easy task.

As an illustration of this let me recount a little incident that occurred while I was once hunting ducks in the twilight. The decoys were set out in a creek a

few rods from the margin, where I lay concealed. The twilight had slowly faded away, and objects at any distance were undiscernible. I had fallen into a train of reflections suggested by the beauty and charm of the scenery, when two loud reports, a few rods to my right, considerably startled me. Jumping to my feet I saw a boat a few feet away. The mystery was soon explained. A duck hunter had paddled up to my decoys in the belief of their being genuine fowl, and had discharged both barrels at the wooden effigies. They were completely filled with shot. I received a couple of pairs of red-heads to recompense me for the damage incurred, together with the fright and agitation which the incident had produced. Accidents of this nature are frequent, and while one should make himself positively certain of the identity of an object before shooting at it, we can readily realize how easily one may be mistaken, as in this instance.

As the season advances and the black ducks become more wary in consequence of the unremitting and persevering attempts of the sportsman to secure them, they do not visit the marshes until after dark. The only way in which the sportsman can then secure good hunt-

ing is by shooting on moonlight nights. While precautions followed in concealing oneself in the daytime are not then necessary, it is desirable to be shielded from the vision of the birds. On clear moonlight nights, when the air is crisp and cool, but not sufficiently so to cause the sportsman suffering, this method of hunting possesses an additional charm. The shrill vibrating monotone of the rapidly moving wings can be heard from every quarter, and to me its sound is sweet, pathetic music. Suddenly a duck will come out of the darkness, loom up into sight like some weird fantastic apparition, and if not brought down, will disappear from sight as mysteriously as it appeared. So closely sometimes do they pass above our heads that we imagine we can feel the wind from their rapidly beating wings. Ever and anon one will drop into the water at our side, creating a great splash, or another, taking fright, will quack its alarm and fly rapidly away.

Frequently we will see what looks like a dull gray mist passing over our heads. It is a large flock of ducks, and bringing the guns rapidly into position, we fire simultaneously. *Thud, thud, thud,* comes from every side as the wounded ducks, borne by the inertia

of the now stilled wings, strike the mud around us. Guided by these sounds we readily retrieve the game and are prepared to shoot again. The sport has an added fascination, because attended with so great an element of uncertainty. At times we fire our guns in the air when our only guide to the position of the birds is the sound of their vibrating wings; and, strange to state, our shots are generally successful.

Because of its tenacity of life, its thick mantle of feathers and down, and the extreme wariness of its nature, the dusky duck requires a heavy load to kill it. The size of shot used should not be larger than No. 3, while No. 6 will invariably give better results. They are very fleet-winged birds, though less rapid than the teals and canvasbacks; and in shooting 3 ft. should be allowed when the game is eight rods distant. Yet this rule of holding on them is not invariable, for the reasons which were enumerated in the chapter "How to Hold, Use and Care for the Gun."

CHAPTER XI.

"Ah! what avails his glossy, varying dyes?"

The Mallard Duck.

THIS species is the progenitor of our domestic duck, reclaimed in time immemorial from a wild state, and now rendered so valuable to the use of man. Our familiarity with the male bird in large measure blunts appreciation of the surpassing beauty of its plumage. The markings of the mallard change with the seasons. The glossy green plumage of the head and neck, and the shiny black feathers of the tail, begin to drop out toward the 20th of May. From that date its former beauty is being gradually lost, until the 5th of July, at which time it retains none of the rich garb of winter; and the male is then of the same general color as the female. By the 10th of October it recovers its enviable beauty

of dress, and far surpasses every species of its tribe, unless indeed the summer duck may equal it in the display of gaudy colors.

While the mallard is very plentiful in England, and is found in every stream and pond of the Western and Southern States, its presence is rarely met with in the salt marshes along the sea coast.

Of all the varieties of the feathered race, there is, perhaps, no bird whose pursuit is undertaken in so many different ways and with such deadly pertinacity as that of the mallard. Yet with remarkable propagating powers, their numbers seem to decrease very imperceptibly in comparison with those of other varieties of game. On their arrival from the nurseries of the far North, where they repair to breed during the summer, they are at once pursued in every way the ingenuity of man can devise. The methods described for taking the dusky ducks may generally be applied to hunting the mallard; and there are, in addition, other modes practicable only in certain localities. In Texas, the fowl are shot in the evening, when they are visiting the timber in search of acorns, on which they grow very fat. The

sportsman conceals himself behind a tree, in a spot where the birds are expected to pass. When feeding, the ducks do not run along the ground as might be supposed; but the rear ducks are constantly flying over those in front, and they, in turn, are headed by others. A friend informs me that their progress is at least ten miles an hour. One evening, with a companion, he watched behind a tree for the birds to pass within range. They soon came along in the manner above described, producing a roar like distant thunder. Two barrels killed above two dozen, and wounded a great many more.

In the rice fields of the South a hogshead is sunk into the ground, about a foot of the top protruding above the level of the marsh. Brush and weeds are arranged about it in such a manner as to conceal the sportsman. The ducks, unconscious of danger, pass to and fro, those coming within range being immediately shot down.

The mallard drake measures 24 in. in length by 3 ft. in extent, and weighs upward of $2\frac{1}{2}$ lbs.; the bill is greenish yellow; irides hazel; head and part of the neck deep glossy changeable green, ending in a narrow

collar of white; the rest of the neck and breast are of a dark purplish chestnut; lesser wing coverts brown ash, greater crossed near the extremities by a band of white, and tipped with another of deep velvety black; below this lies the speculum or beauty spot, of a rich and splendid light purple, with green and violet reflections, bounded on every side with black; quills pale brownish ash; back brown, skirted with paler; scapulars whitish, crossed with fine undulating lines of black; rump and tail coverts black glossed with green; tertials very broad and pointed at the ends; tail consisting of eighteen feathers, whitish, centered with brown ash, the four middle ones excepted, which are narrow, black, glossed with violet, remarkably concave and curved upward to a complete circle; belly and sides a fine gray, crossed by an infinite number of fine waving lines, stronger and more deeply marked as they approach the vent; legs and feet orange red.

The female has the plumage of the upper parts dark brown broadly bordered with brownish yellow, and the lower parts yellow ochre, spotted and streaked with deep brown; chin and throat for about 2 in. plain yellowish white; wings, bill and legs nearly as in the male.

CHAPTER XII.

Canvasback Shooting.

THIS coveted species, so much valued for the rare delicacy of its flesh, and in consequence much persecuted, is confined to the American continent. While the great body of these birds resorts to the rivers and streams in the neighborhood of the Chesapeake, a few of them are killed each year on the Hudson and Delaware rivers, where a grass-like plant is found on which they are very fond of feeding. In the West, on the Mississippi, the canvasback is as rare as the mallard in the East, though a few are occasionally shot on the inland lakes and streams where their favorite food is abundant. This plant is a species of *valisneria*, which grows on fresh water shoals of eight or ten feet in depth; it is

found in great profusion in most of the waters of the Patapsco, Potomac, James and Susquehanna rivers, and the supply of food accounts for the great number of the birds in those localities.

They return from their northern migration about the middle of October, and their arrival is looked forward to by the sportsman who anticipates the rare and well rewarded sport their shooting will afford. Like the black duck, they are always on the alert for the approach of danger, and while a portion sleep, a few are ever on the *qui vive*, to give the alarm at the approach of an enemy. During the day they sit out in the middle of rivers and bays, and when there is no floating ice in the river, behind which one may propel a skiff, their safety is practically insured. On the approach of evening they rise from the water, the rapid motion of their wings producing a sound like distant thunder, and visit the streams and pond holes in search of food. At such times the sportsman may shoot large numbers. If there should be a large point or isthmus in the locality, over which they are in the custom of passing in their flights, the hunter often obtains very

good shooting by concealing himself here. Decoys can be used advantageously, and while those in imitation of the red-head are best, broad-bill stools will answer admirably. Two dozen set out on the water will often prove as effective as a much larger number, while the difficulty of placing them out and taking them up again will be less.

The canvasbacks swim very low in the water, and present a very small mark to hit. It is, therefore, good policy first to flush them before shooting at them. They swim very expertly, and dive with such perseverance, and remain beneath the water for such long intervals, that after one has been only wing-broken, the attempt to chase it is invariably futile. The author has frequently pursued one after dropping it into the water, and when engaged in the chase, has sustained the mortification of perceiving a whole flock of canvasbacks alighting among the decoys thus injudiciously abandoned. He therefore recommends the reader to remain in his blind and watch the decoys, rather than to attempt to secure a wounded duck, unless the chances of seeing any more ducks on that expedition should be exceedingly small.

Tolling in, a method of decoying already described, is very extensively and successfully practiced in canvas-back shooting. A spaniel, preferably of a red color, should be trained to play along the margin of the water. A red cloth tied to his tail, or about his body, will heighten the effect. Perceiving the strange maneuvers, and drawn by an irresistible curiosity, the ducks often approach to within 30 yds. of the spot. The sportsman concealed a few yards away, fires one barrel at the birds as they sit on the water, and a second as they rise on the wing. In this way often as many as twenty or thirty birds are killed at one time.

Sculling is one of the most successful modes of shooting the canvasback, and its practice insures the sportsman an incalculable degree of pleasure. When there are floating cakes of ice in the river, if the gunner will cover his Barnegat sneak boat with snow and skillfully propel it forward, lying on his back or side during the performance, he may obtain excellent sport. He should always go with the current, for the ducks are smart enough to know that a cake of ice never floats up stream. Often in this way ducks are killed when sleeping with their heads beneath their wings.

Another method is that of shooting at ice holes. At times the marshes and streams are frozen over with a thin skim of ice, with the exception of a few places where the wind or the current has prevented the water congealing. Into these open spots the ducks crowd in such numbers that there is hardly a foot of the surface unoccupied. If on first visiting the spot it should be crowded with ducks, a gun should not be discharged at them. If they are merely frightened away without violence, and if a blind is then constructed within range of the water, excellent shooting will soon be afforded. The birds will return either singly or by twos and threes, and a great many more will be killed, and much better sport be had than by shooting into the flock at first. Decoys are not essential, though if set out they may attract a few ducks that otherwise would not have discovered the open water. When the meadows and streams are completely covered over with ice, a hole may be cut, which the birds will soon discover and resort to, and thus sport may be had which otherwise may not be obtainable.

The canvasback is 2 ft. long and 3 ft. in extent, and when in good order weighs 3 lbs.; the bill is large,

rising high in the head 3 in. in length and $1\frac{3}{8}$ in. thick at the base, of a glossy black; eye very small, irides dark red; cheeks and fore part of the head blackish brown; rest of the head and greater part of the neck bright glossy reddish chestnut, ending in a broad space of black that covers the upper part of the breast and spreads round to the back; back scapulars and tertials white, infinitely marked with a number of transverse waving lines or points as if done with a pencil; whole lower parts of the breast, also the belly white, slightly penciled in the same manner, scarcely perceptible on the breast, pretty thick toward the vent; wing coverts gray with numerous specks of blackish; primaries and secondaries pale slate, two or three of the latter of which nearest the body are finely edged with deep velvety black, the former dusky at the tips; tail very short, pointed, consisting of fourteen feathers of a hoary brown; vent and tail coverts black, lining of the wings white; legs and feet very pale ash, the latter 3 in. in width, a circumstance which partly accounts for its great powers of swimming.

The female is somewhat less than the male and weighs $2\frac{3}{4}$ lbs.; the crown is blackish brown, cheeks

and throat of a pale drab; neck dull brown; breast as far as the back extends on the male, dull brown, skirted in places with pale drab; back dusky white crossed with fine waving lines; belly of the same dull white penciled like the back; wings, feet and bill as in the male; tail coverts dusky; vent white waved with brown.

CHAPTER XIII.

The Red-Headed Duck.

THE methods of hunting the red-headed duck are similar to those employed in canvasback shooting. Its habits are almost identical with those of the canvasback; it feeds on the stems of the same grass, while the canvasback eats only the roots. The red-heads are most numerous in the waters of the Chesapeake, arriving there late in October and departing again early in March. In the West, as on the Wapsipinicon River in Iowa, they are plentiful during the spring, and excellent shooting at that season is also obtained in the vicinity of the Missouri Valley in the same State. They fly generally closely bunched, and by shooting among them as they are about to light the sportsman often kills surprising numbers. Canvasback or broad-

bill decoys are equally effective for decoying them, and while a few decoys will answer, the greater the number the more certain will be the chances of securing a shot. This species is very often mistaken for the canvasback, and is frequently sold for such to those unfamiliar with its plumage. The subjoined description of the bird will readily enable the sportsman to identify it correctly. In flavor and delicacy it ranks next to the duck it so closely resembles, and many connoisseurs pronounce it to be the rival of the canvasback.

Adult Male.—Length 20 in.; extent 2 ft. 6 in.; bill dark slate, sometimes black, 2 in. long and $\frac{7}{8}$ in. thick at the base, furnished with a large broad nail at the extremity; irides flame colored; plumage of the head long, velvety and inflated, running high above the base of the bill; head and about 2 in. of the neck deep glossy reddish chestnut; rest of the neck and upper part of the breast black, spreading round to the back; belly white, becoming dusky toward the vent by closely marked undulating lines of black; back and scapulars bluish white, rendered gray by numerous transverse waving lines of black; lesser wing coverts brownish ash; wing colors very pale slate, dusky at the tips;

lower part of the back and sides under the wings brownish black, crossed with regular zig-zag lines of whitish; vent, rump and tail black; legs and feet dark ash.

Female.—Upper part of head dusky brown, rest of head and part of neck a light sooty brown; upper part of the breast ashy brown, broadly skirted with whitish; back dark ash, with little or no appearance of white penciling; wings, feet and bill nearly alike in both sexes.

CHAPTER XIV.

“The geese and the brant in order’d platoons,
Pass high overhead in the Northern lagoons.”

Canada Goose Shooting.

IN their periodical migrations, the Canada or common geese visit every quarter of the United States and are persecuted in every manner that the ingenuity of the sportsman can devise. Their arrival in the fall is regarded as the prognostic of cold blustering weather, and by noting its date one is enabled to foretell the weather in store. In early winters they are seen passing over the waters of Long Island about the middle of October. If harbingers of cold at this season, they are no less in turn the heralds of sweet and genial spring, when the sound of their sonorous honk and the sight of the long line of their numbers stand-

ing out against the sky, are welcomed in the month of March.

Their flight is generally in two lines, converging to a point, in front of which move three or four leaders. The bird at the front is always the largest and most defiant of the tribe, and often secures this envied position by hard and persistent battles. On account of his position, several feet in advance of the converging point of the two lines, any variation in his course can be seen immediately by every individual of the flock. By this arrangement, the whole flock at once receives the alarm from their leader, and turns in the direction taken by him.

Sportsmen, in a district over which the geese fly in their migrations, generally keep a loaded gun placed where it may immediately be taken up. Frequently the birds pass so near to the ground that several are shot from the doorway of a farmhouse. In clear, cold days their sonorous honking may be heard for as much as a mile; there is, consequently, ample time to secure the fowling piece and have it in readiness should they fly close enough to afford a shot.

During the nights of their migrations, thousands

may be heard winging their flight far overhead, the leader ever and anon sounding his note, which seems to tell, "All's well." On moonlight nights they often pass barely above the house tops, and their great gray forms may sometimes be seen against the deep blue of the sky.

No sooner do they resort to a place to feed or rest, than pillage and death overtake their numbers. "The English at Hudson's Bay," says Pennant, "depend greatly on geese, and in favorable years kill three or four thousand and barrel them up for use. They send out their servants as well as Indians to shoot these birds in their passage. It is in vain to pursue them; they therefore form a row of huts made of boughs at musket shot distance from each other, and place them in a line across the vast marshes of the country. Each stand or hovel, as they are called, is occupied by only a single person. These attend the flight of the birds, and on their approach mimic their cackle so well that the geese will answer and wheel and come nearer the stand. The sportsman keeps motionless and on his knees with his gun cocked the whole time, and never fires till he has seen the eyes of the geese. He fires as

they are going from him, and then picks up another gun that lies by him and discharges that. The geese that he has killed he sets upon sticks, as if alive, to decoy others; he also makes artificial birds for the same purpose. In a good day, for they fly in very uncertain and unequal numbers, a single Indian will kill two hundred. Notwithstanding that every species of geese has a different call, yet the Indians are admirable in their imitations of every one. The autumnal flight lasts from the middle of August to the middle of October; those which are taken in this season, when the frost begins, are preserved in their feathers, and are left to be frozen for the fresh provisions of the winter's stock. The feathers constitute an article of commerce, and are sent to England."

To the remote barren regions of the far North these birds wing their lonely flight to perform the duties of incubation. They have been seen migrating on the cold sterile shores of Spitzbergen, and how much further north they pursue their journey can only be conjectured—perhaps to beneath the very polar star itself. Here, secluded from all enemies and all danger, save the inclemencies of the weather, the birds raise

in unmolested freedom the young of their hatching. This accomplished, they soon return, only to run the gauntlet of thousands of guns seeking their destruction. Were it not for the rigors of the northern winters, it is probable that they would never visit those countries inhabited by man, where they are greeted only with pillage and destruction.

The wild goose is easily domesticated, though on seeing its brethren flying overhead, its instinct to migrate is strong. The precaution of clipping one of the wings is wisely resorted to. An instance is related of a wild goose domesticated by a Mr. Platt. A flock of its fellows, passing over the poultry yard, so stimulated its desire for freedom that joining their number it migrated to the north. One day in the following spring, as Mr. Platt happened to be standing in his yard, watching a flock pass over the house, three geese detached themselves from the main body, and after two or three wheels alighted in the middle of the yard. Picture his surprise to recognize in one of them certain well remembered marks which identified it as his long lost fugitive. It had reached the distant nesting grounds of the species, there hatching and

rearing its offspring, and had now returned with its little family to share the sweets of civilization which it had temporarily relinquished.

The methods of hunting geese vary considerably with the locality and conditions under which they are practiced. In the West flight shooting is the general mode by which they are successfully shot. The gunner conceals himself between two lakes over which spot the birds fly, and kills them as they pass within range.

Along the sea coast they remain during the greater part of the day sitting out on the ocean, and to pursue them is then impracticable. When the winds scream and the waves dash with impetuous force upon the shore, these wary birds retreat to the bays and ponds, often under the lee of banks. Unlike the brant or barnacle goose they cross in every direction above the marshes. There is, therefore, little advantage of one place over another from which to shoot the birds in their flights except such as may result from natural means of concealment, as that afforded by an abundance of grass.

One of the most pleasant and successful methods of shooting wild geese is by bringing them within range

through the employment of decoys. In this kind of hunting profile stools are more desirable than those of solid wood. The profiles consist of flat pieces of tin or wood, cut and painted into representation of the natural bird, and they may be purchased, either set in a board which will float them in the water, or with sticks which answer for setting them up in the sand. Superior to all artificial decoys are live geese, which need not necessarily be of the same variety as those they are intended to attract; the common domestic goose answers the purpose admirably. A rubber or leather strip may be wound about the legs of the live decoys to which a cord should be fastened, the other end being secured by a pin stuck in the ground to prevent their escape. They should be anchored in shallow water—for there the geese chiefly feed—and at such distances apart as to prevent entanglement. Goose calls, though better than no means of attracting the birds, possess no merit sufficient to warrant their recommendation. Many hunters can without artificial assistance imitate the call of the male goose so naturally as often to bring them within easy gun shot. The live birds, however, will do far better service than

both wooden decoys and artificial calls, and when practicable, should always be employed. Two, or even one, where more cannot be obtained, will answer, provided it be a good "honker," and if artificial decoys are set out with it. Four or six will always insure better results, but the difficulty of transporting and setting them out is not always compensated by the reward.

The same general advice for setting out black duck decoys given in the chapter devoted to that game will be found applicable to this kind of hunting. Important points to remember are: Set them always to the leeward of the blind, and at such a distance from the bank as will render them readily seen from any quarter; never place them within four rods of the blind nor more than eight; see that they are placed with few at the windward quarter, gradually widening out in the opposite direction, and place none so close together that they will appear as only one bird. Frequently, when not properly weighted with lead beneath, the decoys topple over. If they are allowed to remain in that position, the chances of decoying a goose within range will be ruined. Attention to these little details

will go far to make sure the sportsman's success, and will fully compensate him for the petty inconveniences incurred.

Occasionally a flock of geese will light several gun-shots out of range, and then, if the sportsman remains still, will swim into the decoys. A Barnegat sneak boat, if carefully thatched with grasses or covered with cakes of ice and dragged on to the bank, will answer the purposes of a blind. The cramped position of lying down in one is such, however, as to render any other means of shelter decidedly more comfortable, and better to shoot from.

When wounded, the wild goose dives with such energy, and remains submerged for so long a time as often to defeat the sportsman in his attempt to capture it.

The hours in which this bird may be hunted with the greatest chances of success are those of the early dawn and the twilight of evening, excepting on cold stormy weather, when sport may be had throughout the day. During heavy snow storms, the geese often become bewildered and lost, and fly in every direction. At such times they have frequently been seen to

alight in front-door yards, unconscious of their proximity to danger. In morning shooting, the decoys and blind should be in readiness by the first approach of daylight. If the sportsman attempts to arrange himself for action after that time, many geese that might be swimming a few gunshots away, observing his movements, will not approach the decoys, while had he exercised the above caution, they might have afforded a shot.

Clothing suited to this kind of hunting need not be different from that used in other branches of wild fowling, and is fully described in the chapter, "Comments on Wild Fowl Shooting."

The most approved firearm with which to shoot this strong and vigorous bird, provided that pleasure is desired as much as the birds, will be found in the 10-bore. It should not be less than $8\frac{1}{2}$ lbs., nor more than 12 lbs. in weight, with a barrel 32 in. in length. The 10-bore will shoot $4\frac{1}{2}$ drs. of powder and $1\frac{1}{4}$ oz. No. 2 shot to good advantage. The 12-lb. gun will take either 5 drs. or 6 drs. of powder, and though the majority of sportsmen would employ the greater charge, the author believes the lighter one capable

of giving the best results. The charge of shot may be increased to $1\frac{1}{2}$ oz. of the same size, or No. 1 is recommended if this shall be found to give a more even pattern. Any slight variations from the above in either the weight of the weapon or size of the load will not of course wholly ruin one's success. From his experience the author has found that the above designated weights for guns and their charges give the best results, and is therefore warranted in recommending them.

The wild goose, when in good condition, weighs about twelve pounds. Its length is 3 ft. and extent 5 ft. 2 in., the bill is black; irides dark hazel; upper half of the neck black, marked on the chin and lower part of the head with a large patch of white, its distinguishing character; lower part of the neck before white; back and wing coverts brown, each feather tipped with whitish; rump and tail black; tail coverts and vent white; primaries black, reaching to the extremity of the tail; sides pale ashy brown; legs and feet blackish ash.

The male and female are exactly alike in plumage.

CHAPTER XV.

" There's a two-fold sweetness in double pipes;
And a double barrel and double snipes
Give the sportsman a duplicate pleasure."—*Hood*.

Snipe Shooting.

THREE is no diversion of the sportsman more deeply cherished than that rare and exhilarating pursuit which is the subject of the present chapter. The weird, melancholy stretches of marsh land where the sport is indulged, the soft, enchanting dawn heralding the approach of day, and the silvery trill of the snipe borne to our ears on the pulseless air of early morn—all these conspire to give it a charm not found in upland shooting.

To the sportsman who glories in the pursuit of snipe and other aquatic birds, the constant though gradual decrease in their numbers, which threatens

eventually their extermination, must prove a source of the deepest disappointment. We ourselves confess to a feeling of regret akin to remorse, for not having urged the enactment of stringent laws prohibiting the wanton and unseasonable destruction of our shore birds. Had such legislation existed, the poor and uncompensating results now so meagerly rewarding the sportsman's efforts in a day's excursion on the marshes after snipe would not be the rule.

In many States there has been no enactment of laws prohibiting the killing of these birds in their migrations northward. As a consequence their numbers are unprotected from the greed of the pot-hunter, ever vigilant to secure the greatest number for the markets and hotels. Thousands of snipe thus fall victims to the deadly skill of these men; whereas were the birds suffered to reach their distant breeding grounds, they would replenish their numbers and, returning in the fall, would afford the most liberal sport.

Many sportsmen, otherwise conscientious and decrying the practice of spring shooting, engage in it because others generally do so too. They argue, and with

reason, that it would be illogical to deny themselves the pleasure derived from the pursuit of snipe, hoping thus to preserve their numbers, when thousands of other hunters destroy the birds without remorse and without conscience.

The commonest variety of snipe, and that which, since it is pursued with the greatest zeal and interest, first deserves our attention, is the English snipe. It arrives in the meadows of Long Island toward the latter part of March, and while a few remain through the summer, the great body depart in a few days and move on toward the north.

The length of the English snipe is 11 in., its extent 17 in.; the bill is more than $2\frac{1}{2}$ in. long, fluted lengthwise, of a brown color, and black towards the tip, where it is very smooth while the bird is alive, but soon after it is killed is dimpled like the end of a thimble; crown black, divided by an irregular line of pale brown; another broader one of the same tint passes over each eye; from the bill to the eye there is a narrow dusky line; neck, and upper part of the breast pale brown, variegated with touches of white and dusky; chin pale; back and scapulars deep velvety black, the

latter elegantly marbled with waving lines of ferruginous, and broadly edged exteriorly with white; wings plain dusky, all the feathers, as well as those of the coverts, tipped with white; shoulder of the wing deep dusky brown, exterior quill edged with white; tail coverts long, reaching within three-quarters of an inch of the tip, and of a pale rust color spotted with black; tail rounded, deep black, ending in a bar of bright ferruginous, crossed with a narrow waving line of black, and tipped with whitish; belly pure white; sides barred with dusky; legs and feet a very pale ashy green; sometimes the whole thighs, and sides of the vent, are barred with dusky and white. The female differs in being more obscure in her colors; the white on the back being less pure, and the black not so deep.

Should the sportsman be unsuccessful in snipe shooting he must continue patient and visit the meadows again and again until his efforts are rewarded. On one occasion the marshes may be resonant with the calls of the snipe as they fly to and fro, while at another time not one of the birds can be discovered. The most propitious day for shooting is one following that on which the wind has blown northeast and then veered

around into the southwest. At such times the snipe that have been migrating southward far at sea and those flying among the clouds are loath to proceed against a head wind and resort to the marshes, meadows and sand bars situated along their line of flight.

When the tide is low, and such conditions prevail, the birds repair to the sand beaches and bars along the seashore. By screening himself behind a heap of brush or weeds and setting a few decoys up in the sand, the sportsman may often obtain good shooting. On the manner in which he sets them out chiefly depends the degree to which he will be successful. While twenty or even less decoys are generally used, fifty will more surely bring the snipe within range. They are set to the ~~windward~~^{LEEWARD} of the blind and placed in a crescent-shaped line, their heads pointing into the wind. They should be supplied with two sets of sticks, those of one size serving to hold them up in the sand, while the other of a longer length may be used when placing them in 6 or 8 in. of water. When they are set in water there will be a better chance of their being seen at a great distance by the passing flocks, their image being reflected in the water. If the large shells, which

are found in profusion along the seashore, are stuck up on sticks they will answer admirably for decoys. In the absence of these the author has often substituted for them empty cartridge cases with surprising success.

Decoys of various kinds may be found in the market. One in particular is of very ingenious manufacture, and though not desirable when shooting about the water, because easily rusting, is unsurpassed for use in the uplands in plover shooting. It consists of two pieces of tin, convex on the outside and concave on the inside. Hinged together at the back, they present when closed the appearance of a snipe, but when open they may be packed one within another like so many hats, and carried in a very small compass. Other decoys are cut out of flat sheets of tin; when their sides are seen at a distance they appear remarkably like the genuine birds. Owing to their extreme compactness and light weight, they are recommended for use when it is necessary to carry them for a distance by hand.

Decoys cut out of solid blocks of wood are generally employed, and for all kinds of shooting must be found superior to the others. While it will be found conducive to the greatest success to paint them in imita-

tion of the particular variety it is desired to decoy, there is no necessity for so doing.

Curlew and the English snipe especially do not "stool" well where a blind has been erected. A box sunk into the sand will afford the best concealment. This need not be more than fifteen inches in depth and of sufficient width and length to conceal one without discomfort. It may be constructed like the one described for wild fowl shooting in the chapter on "Blinds and Decoys." If placed on some sand bar at low tide it will prove a favorable point from which to shoot the birds in their flights. At high tide it is necessary to vacate the blind, for the birds are then found in the marshes, where they resort to feed. In hunting them there the approach should be from the windward quarter; the birds always spring against the wind; and by heeding this advice a great advantage will be gained. The novice will find it difficult to bag a snipe unless previously directed how to shoot when the bird has been flushed. Its course for the first few yards is so irregular that to hit it is almost a hopeless attempt. By suffering the bird to go a short distance these elliptical twistings will be discontinued, and the snipe will

settle into a comparatively regular flight, and may then easily be bagged.

Much diversity of opinion exists as to the advantages of using dogs in this kind of shooting. Some sportsmen maintain that their employment is unnecessary, while others assert that good sport is not to be had without them. The author believes that the success of a day's excursion in the marshes can be greatly enhanced by their use. But some kinds of dogs are more to be depended on than others. On cold, tempestuous days the snipe show great disinclination to flight, and only when the bird has almost been stepped on and forced to flush, does the sportsman discover its presence. At such times the services of a dog in finding the game and pointing it out to the hunter are invaluable. The pointer is preferable to the setter, inasmuch as its shorter hair does not retain the water, and when taken in a wagon it causes the other occupants much less annoyance. A cocker spaniel is admirably suited to this kind of hunting, and if it is trained to retrieve in addition to pointing, it will prove valuable in finding the birds that have been killed and dropped into the long grasses or water out from the shore.

Snipe calls are supplied by most gun stores; but as to employ one successfully implies a long and familiar acquaintance with their use, and a knowledge of the various whistles of the different kinds of snipe, they can hardly be recommended. The most successful snipe shooters depend on their own ability to whistle a loud and correct imitation of the bird's call without relying on any artificial means of assistance.

Upland plover shooting is a very interesting and often successful amusement, if pursued by the right method. Notwithstanding their great wariness, the birds may by a clever ruse presently described, be brought within range and bagged. As they usually flush at long distances, it is difficult to secure good shots. By dropping instantly on his back, however, the sportsman may cause one to return. On taking flight the plover looks around, and not detecting the presence of an enemy, thinks it has been duped. Not wishing to be laughed at by its companions, it returns to the spot. On its coming within range, the sportsman, who in the meantime has lain quite still, now rises and shoots the bird down. By repeating this programme every time a bird is flushed, one may go

through a field and bag every plover therein. If the reader has never tested the merits of this plan, he is earnestly advised to do so; we are confident that his success will be assured.

The localities are various in which this amusement may be indulged at the proper seasons of the year. Some of them are here noted:

In Maine, excellent shooting is found on the Island of Grand Menan; and along the entire coast of Hancock, Waldo, Knox, Lincoln, and Sagadahoc in Washington County; also in Cumberland and York counties.

In New Hampshire—Rye Beach and Hampton.

In Massachusetts—Essex County: Plum Island, Ipswich, Cape Ann, Gloucester, Beverly, Marblehead, Salem and Lynn. Norfolk County: Randolph and Cohasset. Plymouth County: Marshfield, Duxbury, Clark's Island, Plymouth and Manomet Point. Barnstable County: Sandwich, Chatham, Freshnet, Wood's Holl and at almost all the towns along the coast, on Cape Cod and Buzzard's bays, and the ocean side. Bristol County: South Dartmouth and Quansett.

Rhode Island—Newport County: All the islands. Washington County: Point Judith, Block Island, Bristol, Peacedale and Watch Hill.

New York—Long Island: Fisher's Island, Plum Island, Ram Island Shoals, Orient Point, Montauk Point, Bridgehampton, Southampton, Shinnecock Bay, Moriches and Great South Bay, and inland all along the south shore. Staten Island: Great Salt Kills

New Jersey—Monmouth County: Manasquan Inlet. Ocean County: Squan Beach, Barnegat Bay and Long Beach. Burlington County: Tuckerton. Atlantic County: Brigantine Beach, Absecon and Somer's Point. Cape May County: Peck's Beach, Townsend Inlet and Leaming Beach.

Delaware—Sussex County: Lewes, Rehoboth Bay, Indian River and Long Neck.

Maryland—Worcester County: Hammock Point, Berlin and Sinepaxet Beach.

Virginia—Accomac County: Chincoteague Island, Wallops Beach, Gorgathy Inlet, Assawman Island, Matomkin, Cedar Island, Burton's Bay, Trout Channel, Little Matchipongo Inlet, Revel's Island and Matulikin. Northampton County: Hog Island, Sand Shoal, Great Matchipongo Inlet, Cobb's Island and Smith's Island.

CHAPTER XVI.

The *Sora* Rail.

IT is with a sense of deep satisfaction that the sportsman feels the sweltering weeks of summer drawing to a close and anticipates the cool, refreshing days of early autumn. Heightening this pleasure is the thought of abandoning the tame amusement of trap-shooting, and supplanting it by the more exciting and exhilarating pursuit of the birds in their natural haunts. The first game affording him an opportunity to gratify his shooting propensities and to supply a delicious repast as a reward for the labors attending the hunt is the sora rail. The sora, or coot, as it is termed in South Carolina, arrives from the north about the 10th of August, at a season when either the law or the absence of other game renders its pursuit the only available shooting.

The sport is transient, for it may be engaged in only for a few hours each day, and a few weeks in the year, but such is the abundance of the rail, as compared with other game, that one may in a few hours obtain large bags.

To most of our sportsmen the habits of the sora are shrouded in profound mystery. Without any intimation of their arrival the swamps, meadows and tidewater lands along our rivers of a sudden swarm with their numbers. With the first sharp frost the same localities will not contain a single sora, though no one can be found who has witnessed their departure. Many, curious and absurd, have been the theories to account for their mysterious disappearance. For example, the once widely credited explanation was that at the approach of inclement weather they buried themselves in the mud. In fact excavations have actually been made with a view to determine the truth of the theory. Others have asserted that the rail were transformed into frogs and back again on the return of spring. In support of this allegation it was gravely averred that the croakings of the frogs disappeared with the arrival of these birds. Once upon a time a colored investigator, more eager in

the acquirement of knowledge than the others, found an animal which resembled neither a frog nor a bird, but a mixture of the two. This he believed was the rail in the process of transformation.

In the marsh the rail flies with great reluctance, much preferring to run through the interstices of the reeds and rushes. Here, owing to the great vigor of the legs and compressed form of the body, its progress is accomplished with great ease and celerity. When flushed its flight is low, feeble, and fluttering, seldom extending to over a few rods, when down it drops vertically into the rushes, and at once runs off with great rapidity. With these habits it would seem impossible for it to feed one day in the vicinity of Philadelphia, and a week later hundreds of miles away. In May it is found in the meadows of the Delaware, while in June it has passed on to the dreary stretches of the remote North, up to the 62d parallel. That it is capable of long-protracted flights would seem impossible, were it not known that it has been found hundreds of miles from those localities where it had been seen but a few days before.

To account for these extraordinary phenomena, it

may be supposed that while in the marsh the rail attain such corpulence as to render their flight labored and unnatural, but when about to migrate, they have become less unwieldy, and then prosecute their journey with great facility. On their arrival in August they are lean and little valued as food. At such times we have observed them fly a considerable distance. On one occasion, at that season, we flushed a rail on a narrow strip of land where concealment was impossible, when it flew more than a mile with apparent ease.

A month after their arrival they become very fat and are then considered delicious morsels. At such time they are hunted with the greatest degree of pleasure. At full moon they are said to be in the best condition for eating, and with its wax and wane they increase and decrease in flesh. This may be explained on the supposition that at full moon they can extend their feeding into the night. Rail bring a very paltry price in the markets, thirty cents a dozen being paid. Yet, considering the number killed, ten dozen being bagged in four hours, and the pleasure incident to their pursuit, the price is amply large.

In traversing a marsh where thousands of these birds

are concealed, one can nearly step on them before they resort to flight, and even a dog is led rods through the labyrinths of their retreat, and has his nose within a few inches of the rail, before it will rise. Their whole defense lies in their capacity to skulk and hide beneath the flat and matted grass abounding everywhere in the marshes. Often they dive and cling with their bill to some vegetable substance at the bottom, eluding pursuit. At other times they swim with only the end of their bill projecting above the water. In thus attempting to escape the gunners, they fall prey to eels and cat-fish. An eel on being cut open was found to contain a sora intact.

Like the canary and some other small birds that swoon under the influence of excitement, the rail often fall into a deathlike state. Frequently while hunting in the marshes, I have come upon them lying motionless on the ground. On picking one up, believing it dead, I was greatly surprised to see it regain consciousness, look about in a startled manner, and then fly away. A gentleman, having taken a rail alive, was able, repeatedly, by merely pointing a finger, to throw it into a state of semi-consciousness, from which it was

several minutes in recovering. The peculiarity does not seem to be confined to this species, but is observable to a greater or less degree in the whole family.

If a stone be thrown in among their numbers, there is immediately a loud and confusing uproar, resembling the cackling of guinea hens.

When the *Zizania*, or wild rice, is abundant, they become very fat; they feed on its nutritious grains almost exclusively, and a very delicate flavor is imparted to the flesh. Many thousands are sold annually in the markets of New York and Philadelphia under the name of reed birds.

The rail is 9 in. long, and 14 in. in extent; bill yellow with black tip; front crown, chin, and stripe down the throat, black; cheeks and breast, fine light ash, together with stripe over eye; sides of crown, neck, and upper parts generally olive brown, streaked with black, and also with long lines of pure white, the feathers being centered with black, on a brown olive ground, and edged with white; these touches of white are shorter near the shoulder of the wing, lengthening as they descend; wing plain olive brown; tertials streaked with black and long lines of white; tail

pointed, dusky olive brown, centered with black, the four middle feathers bordered for half their length with lines of white; lower parts of breast marked with semi-circular lines of white, on a light ash ground; belly white; sides under the wings deep olive, barred with black, white and reddish buff; vent brownish buff; legs, feet and naked part of the thighs, yellowish green; exterior edge of the wing white; eyes reddish hazel.

The females and young of the first season have the throat white, the breast pale brown, and little or no black on the head. The males may always be distinguished by their ashy blue breasts and black throats.

The method of hunting in tide-water sections is very different from that employed as described for snipe shooting. A flat-bottomed boat, not wider than two feet, is an indispensable auxiliary to this kind of shooting. The depth of the water and abundance and compactness of the reeds render such a craft invaluable. The greater the expertness of the oarsman or poler, the greater will be the opportunities of success; he is called upon both to propel the boat forward and to mark the spot where the birds drop when shot. For every bird thus marked and retrieved he receives a

stipulated sum, in addition to his other compensation. The sportsman seats himself on a board placed across the sides of the boat's bow, in order to secure a greater elevation than the seat admits, and thereby to obtain a better view of the surroundings. The oarsman stands in the stern, a long pole widened on the bottom being used to propel the boat forward. About two hours before the flood of the tide they enter the rushes. As they proceed the rail spring singly, not more than twenty or thirty yards away, and are immediately shot down. The guide keeps his eye on the spot where the bird drops, for should he lose sight of it for but a single instant he might never find it, so closely does it resemble the rest of the rushes. If wounded the rail will sometimes dive, and clinging to the bow of the boat, move about with its movement, until a chance of escape is afforded. As the birds invariably rise singly, and as a hundred are often killed on a single occasion, the sport is most vigorous and exciting. It is continued for three or four hours, when the receding tide renders it necessary to vacate the marsh. Even at high water, where there is a density of grass and sedge, the urging of the boat forward is a most laborious task.

For rail shooting a light firearm is preferable. A 16-gauge is suitable, weighing 6 lbs., and loaded with 2 drs. of powder and $\frac{3}{4}$ oz. shot. Considering the short range, even a lighter charge might be effective. No. 12 shot is used extensively, and will give excellent results. When a 10- or 12-bore is carried the charge will be only one-half the usual amount of powder and shot. Even were the pecuniary advantage of a light load not appreciated, the lessened recoil in a hundred shots is a very decided benefit.

The negroes about the James River do not expend powder and shot for securing this game. The method employed is very novel. In the bow of the boat a pole of about 4 ft. in height supports a large pan of blazing pine knots and other inflammable material. This illuminates the water around the boat for several yards. A negro seated in the stern paddles or pushes, while his companion in the bow carries a long oar raised high in the air. The rail are dazed by the light, and when the boat comes within striking distance of them, down comes the paddle on their backs. Sometimes a dozen are killed at a single stroke of the oar.

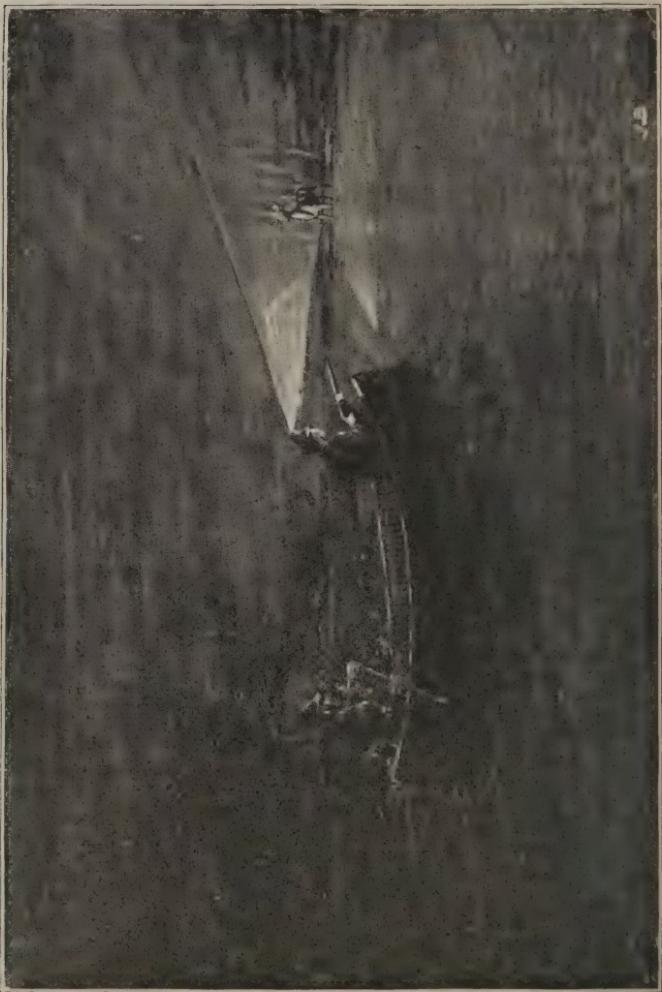
In consideration of the great destruction of these

birds, nature must provide some means for their rapid propagation. This is probably furnished in the seclusion of their breeding grounds, isolated from human molestation, and perhaps secure also from the attacks of beasts or birds of prey. It is not unreasonable to believe that they go even to the North Pole, where may exist, and it is even thought by scientists, does exist, a fertile country. Birds of passage have been observed flying northward at the most remote latitudes ever reached by man. Is it not natural to believe that nature has provided a breeding ground in this desolate waste, where certain birds, possessed of the powers to migrate, may go and replenish their numbers? Nature is very provident for her creatures, and by such a provision, if it exists, a great many birds, or their progeny, can remain for indefinite ages, despite the ruthless killing of the pot-hunter, and too often the wholesale bagging of the unscrupulous sportsman, whose glory chiefly consists in large numbers. The Peary expedition may throw some light upon these mysteries, and reveal to us some very interesting phenomena respecting the habits and migrations of certain species of which our knowledge is now a blank.

PART IV.

UPLAND AND COVER SHOOTING.

JACKING IN THE ADIRONDACKS.



CHAPTER XVII.

Deer Hunting—Jacking.

TOWARD the latter part of August, when the law permits the killing of deer, no more delightful recreation can be afforded the sportsman than that of engaging in the pursuit to which the present chapter relates. The nights are still warm, and if properly clad, the sportsman need incur no discomfort from the weather. The methods of hunting described in the two following chapters, cannot now be successfully practiced, while in localities where the deer has not been molested during the summer months, excellent results may be realized in jacking.

In the Adirondacks, as in other mountainous districts, the deer seek the seclusion and safety of the woods, often upon or near a ridge or hill. Like most

wild animals, they feed at night, between the hours of morning and evening twilight, being rarely seen unless accidentally come upon while enjoying a noonday siesta. At the first approach of night, however, they begin to travel about in quest of food. They are inordinately fond of the lily pads, found in such profusion in most ponds and streams in the localities they frequent. On warm muggy nights, either the thought of a sweet refreshing bath in the cool waters of some lake, or the increased attack of the gnats and mosquitoes, causes them to visit the streams early. On such occasions they are frequently submerged in about 3 ft. of water, the tips of their ears and nose being alone visible above the surface. We recall an instance of this kind. One warm, sultry evening, when paddling through the lily pads, a deer was discovered feeding several rods from the shore. As we approached the spot, instead of attempting to escape through flight, the deer sank lower in the water, until only the tip of the nose could be discerned; not until the danger of a collision was imminent did it attempt to run.

By concealing himself on the shore of some pond, a short time before sunset, the sportsman may be af-

forned a shot by twilight. A close observer can determine whether they have been accustomed to visit the spot, by the examination of footprints in any soft ground about the place, and the appearance of the lily pads. Where the game has fed, the leaves will frequently bear marks of having been clipped. Deer generally travel to and from their feeding grounds by well-beaten paths, which are easily recognized by the imprints of the feet. In watching the spot where one of these "runways" enters the pond, the sportsman's chances of obtaining a shot will be good. The great cravings they have for salt prompts them toward the latter part of summer to travel long distances to satisfy this appetite. By baiting a hollow log with a few lumps of salt, and taking a position every evening at a point overlooking the spot, a shot may be had. There are at various points in the woods natural "salt licks," where this game is frequently found feeding, and to visit them may be productive of successful shots.

Jacking is the most satisfactory way in which to effect their capture. In sections where streams and ponds admit the use of a boat, the sportsman proceeds as follows: Placing a jack light on his head, held in

position by means of a belt fastened around the hat, he takes his position in the bow of the boat. The guide, who is seated in the stern, silently propels the craft forward by means of a paddle, which is not raised out of the water. Moving his head to the right or left, the sportsman throws the belt of light on either side of the stream, as may be desired. The boat proceeds without making any noise to alarm the game. The first and often the only indication that a deer is in range, is given by two glaring balls of fire, which flame with a fiendish light. These are nothing more than the jack's reflection on a deer's eyes. It is easier to realize than describe the sportsman's astonishment and awe on suddenly beholding such a spectacle. Sometimes the emotion is so intense as utterly to overwhelm the mind, and frustrate the intention of the hunter. This condition has been termed "buck fever," and the gun is more often fired in the air regardless of aim, than at the object. The deer itself must become likewise subject to a certain amount of terror, as sometimes it will stand staring at the light for several seconds before attempting to escape. In hunting on a pond which is only about a mile in circumference, two or three jour-

neys around it may advantageously be made in a single night. Suitable intervals should elapse between them, thereby affording time for any deer to enter that may intend doing so, and to permit the return of those that may have been driven out without being so alarmed, as not to recover from their astonishment. After returning to the shore from the first trip around the pond, a fire is sometimes kindled; but the smell of the smoke in the vicinity will deter any more deer from entering the pond; and whatever chances may have existed, are thus thrown away.

When the deer are very wary, one should employ the extra precaution of a cap over the light, which may be removed on approaching the game, whose presence will easily be detected by the trained ear of the guide. The disadvantage of "running dark" is, that when the animal makes no sound whatever, the chances are as ten to one that he will not be discovered. The jacks have frequently a red or blue glass; the blue light, it is claimed, is less liable to excite alarm.

As carrying the light on the head often induces headaches, it may be mounted on a revolving pole in the bow of the boat. When it is desired to throw the

light either to the right or left, the pole is turned by the right hand, the left one retaining the gun. An excellent plan of carrying the jack, and one generally preferred and adopted by the Adirondack guides, is attaching it to the gun. It should be raised by two strips of tin clasping the barrels on both sides a few inches in front of the breech. This arrangement insures that when the gun is aimed at an object, the light's rays will fall on the same spot. Owing to its elevation above the barrels, it in no wise affects the sighting of the weapon.

Moonlight nights are rarely favorable to good hunting. The deer are not so wont to leave the woods, nor are they easily approached, for they may discover the presence of a boat before it approaches within shotgun range. At such times, a light is of no benefit; and the only hope of obtaining a shot lies in the prospect of the deer's going out into the water, when the moonbeams may reveal its form.

The eyes of cattle and sheep possess the same luminosity when a light is thrown upon them as do those of wild animals. A natural result is that domestic animals are frequently shot through being mistaken for game.

The graver and altogether inexcusable error is sometimes committed of shooting at a jack and wounding or killing a human being, or discharging the gun at a boat, mistaking them for deer. Accidents of this nature are too prevalent; and those whose nerves are so high-strung as to cause them to fire at everything and anything they see or hear, ought never to hunt, except when the excitement is small and does not overwhelm the reason.

The fascination of deer hunting at night is known only to those who have participated in this kind of sport. Night after night has the author taken his position in the bow of a frail batteau to repeat the experiences of past excursions. The novelty of this kind of hunting has a charm; and the sweet and refreshing pleasure realized from it increases at each repetition. Even when the night is mellowing into day, and no shot has been obtained, one's only regret is that the hours have passed so quickly. A peculiarity of the sportsman is that the more unsuccessful he has been on one hunting excursion, the more eager is his desire to hunt again, and the more sanguine are his hopes of success. This seeming anomaly may be explained

by the fact that when no game has been found in a locality, the conditions have been unfavorable to good hunting on that occasion, but on the next they will probably be reversed, thereby insuring a successful result.

The shotgun, loaded with buckshot, is most generally used for night hunting. While it may seem unsportsmanlike to employ such a weapon for large game, the fact that, when used by novices, only a small proportion of the deer shot at with it are killed, would in a measure justify its use. The rifle is sometimes used in jacking by experts with very good results. It is safe to say that of those who hunt only a few days in the year, and at other times have no opportunity for practicing, not one in fifty would kill a deer with the rifle. Large numbers of sportsmen visit the woods when only jacking can be relied on; they are unused to rifle shooting, and we are of opinion that they may legitimately employ the shotgun.

To be effective, the gun should be charged with a size of buckshot chambering 4 and loaded in accordance with the directions about buckshot given in Chapter II. A difficult matter is to shoot from a boat when the

only light is that from a jack, and the mark only two luminous disks four inches apart.

During the earlier days of the hunting season, before the deer have been persecuted, they are often loath to run on the approach of danger. One warm, muggy night a party of three hunters were returning from a fishing expedition. Having already taken two deer, together with 20 lbs. of trout, they did not attempt to kill any more game. On a suggestion that the boat be propelled as quietly as possible to discover how closely they could approach a buck then standing several rods down the river, the experiment was tried. Slowly and silently was lessened the distance to the noble animal, yet unconscious of all danger. Not until the bow was on the very point of striking its hind legs, and the forward passenger uttered a startled exclamation, fearing lest the animal on springing might strike him with its powerful legs, did it take alarm. With an extraordinary bound it cleared a six-foot bank, and for several minutes later could be heard thrashing through the underbrush, uttering a loud and prolonged whistle. This sound is produced by forcing the air violently through its nostrils. Late in the season it is frequently heard

long before one has approached within shotgun range of the animal. At times, on taking alarm, a deer passes through the woods so silently that except for a frequent whistle it utters in fleeing, there is nothing to indicate its progress.

CHAPTER XVIII.

Deer Hunting—Hounding.

ONE of the most successful methods of hunting deer if perhaps not the most legitimate, is hounding. To drive a deer into a pond, and after the guide has paddled you within a few feet of the victim, to riddle it with buckshot, is certainly not the highest standard of sport. No honorable sportsman, however, will resort to such a practice to secure his game, preferring the more worthy, and to a true hunter the more enjoyable way, of shooting it as it dashes through the woods, or swims at long range, when the chances of escape are equal to those of capture.

Success in this sport depends chiefly on the guide's knowledge of the woods and the sincerity of his endeavors to secure his employer a shot; and last, though

not least, the sportsman's own patience. To guard for a space of eight or ten hours a day the approach of some pond or stream where a deer is expected to enter the water, can prove pleasant only to those who are endowed with a fervent fondness for hunting. Day after day the same routine follows, often without one's seeing a deer, or even hearing the quick sharp yelps of the hounds as they speed through the forest, heedless alike of intercepting stumps and prostrate trees in their mad pursuit of the fleeing game. But the close observer of nature has other consolation than that afforded through the seeing or shooting of game. If he keeps perfectly quiet the woods will divulge many sights and secrets not vouchsafed to those who hurry through their aisles, and who are given neither to observation nor reflection. As the sportsman listens eagerly for the baying of a dog, which often heralds the approach of the deer, a chattering to the left or right will cause him to turn his head; and the frolicking of a little squirrel, as it scampers up and down a tree in a game of tag with its companions, will furnish him much entertainment; or before him he may perceive a bullfrog looking inquisitively up, blinking its

large expressive eyes, and seeming to inquire, "What business have you here?" On the least movement he will disappear with marvelous quickness; but if quiet be maintained, he may presently return. One day the author was thus entertained by a frog looking up at him. So absorbed was he in watching what seemed remarkably like an expression of curiosity depicted on its countenance, that he failed to notice a deer fording the river a few rods below. A crane may alight close by and will evince perfect unconcern for the sportsman's presence so long as stillness is maintained; and will afford abundant interest in the observation of the graceful curvature of its neck, and the consummate grace with which it fishes the shallow waters in quest of a meal. The drumming of a partridge will direct his attention in another direction, and a flock of partridges may be seen strutting about all unconscious of danger. They are safe, because the injunction given by the guide was to shoot at no marks nor at any game except a deer. This advice must be most strictly adhered to. A shot at some inopportune moment may cause a deer to change its course, when had more caution been employed it might have afforded excellent sport.

The duties devolving upon the guide, who, if honest, as the great majority are, will conscientiously perform them, certainly entitle him to the \$2.50 a day generally paid for his services. An additional charge of fifty cents is made for the use of his dogs, boats, etc. The author has accompanied the guide on his excursions in "putting out the dogs," and can vouch for the labor incident to the trip. The account of one of these journeys may have an interest for the reader, and at the same time give an insight into the daily lives of these men, with many of whom the rough, rugged experiences have a special fascination.

It was toward the latter part of October. The cold, clear nights and crisp, frosty mornings indicated the passing of warm, genial weather and the approach of winter. For several days past I had been watching the approaches of ponds and streams, hoping to obtain a shot at deer, but each day I had to return unsuccessful. On the suggestion that I should accompany the guide in his trip to place the dogs on the tracks of individual deer, I cheerfully availed myself of the opportunity. One morning, when he had a larger number of dogs than usual, I offered to lead three of the more tractable

ones. After assigning the sportsmen to their places along the river, at distances varying from a quarter to a half-mile apart, we proceeded to put the dogs out. However easy it may appear to proceed with three dogs chained to one's belt, experience teaches quite the reverse. They were sure to go on precisely the opposite side of the tree from that taken by yourself, and when you endeavored to pass over a log they always found the shorter way of going beneath it. Under these difficulties it proved no pleasant task to remain with the guide, who, by alternate chastisements and imprecations hurled at his dogs—sometimes both at once—managed to set a comparatively rapid gait. Our course lay up a gentle incline, which we had scarcely commenced to ascend when a large track, doubtless freshly made, enabled us to start one of the dogs. Scarcely had its collar been slipped when it bounded through the forest uttering short, sharp yelps at each jump. We sat down to listen. I was told that the deer had not yet been started, but when it should be the yelping would become louder and more prolonged. A minute later the woods resounded with music which confirmed the guide's remark. A little later we heard

the baying gradually die away; and then we proceeded as before.

It is not expedient to allow all the dogs to chase the same deer, as one alone will generally drive the game quite as quickly to some pond or stream. In endeavoring to evade its pursuers the deer invariably runs to some water-way, and then, swimming either directly across or along the shore, it emerges at a point distant from that of entering. Reaching the water the dog loses the trail, and is obliged to abandon the pursuit, or to run along the shore again, to regain it. There are paths through the woods beaten by the deer in constantly following the same courses to the water. The guide's knowledge of where these enter the streams or ponds enables him to place the sportsmen at the most desirable points.

Proceeding as before, we allowed all the dogs to go each on a different scent. There was then nothing to do but to wait until one should return to us, when the same course would again be followed. We had not long to rest, for presently Sport, a large muscular hound, returned. Scarcely had I leashed him before the low musical baying of a dog attracted our atten-

tion. The sounds becoming gradually louder indicated a "race" coming in our direction. Cocking his gun, and standing ready to shoot if an opportunity afforded, my companions admonished me to hold the dog down in order that he might not by baying turn the deer from its course. This injunction I endeavor to carry out, and took my position astride the dog, with my hands clinching its jaws to prevent its alarming the deer.

Then we awaited developments. Closer and closer came the sounds, and tighter became my grip on the dog's mouth. Suddenly a magnificent buck bounded into view; at the same instant the dog, catching a glimpse of the game, with a prodigious effort released itself and threw me completely on my back. But the strength of the chain that held him prevented his entering the chase. As it was, he would have succeeded in dragging me after him, had I not clung desperately to a sapling fortunately within reach. As the deer again leaped, the ball from an accurately aimed rifle reduced what a second before had been a graceful bounding creature to a bleeding carcass. It was dressed and hung up on a limb to be returned for later with "old

Bill," a veteran horse well broken to carrying game. Having already enough meat for the house, and several shots having been fired in the direction of the river, indicating that deer had gone that way, we decided to return home. The sportsmen had also been successful, killing two large does, of which achievement they gave a very vivid and detailed account.

That night, gathered around the open fire-place of a hospitable farmhouse, we were treated to the accounts of novel and dangerous experiences in this kind of hunting. An old and swarthy guide described how, upon shooting a deer swimming thirty rods from shore, he divested himself of his garments, and in the absence of a boat, prepared to tow it to the shore. Jumping into the icy water, for October was far advanced, he swam toward his prize, but before reaching it was almost disheartened by seeing it sink. The dog had reached the spot, and swimming in a circle, marked where it had disappeared. Presently, however, the deer returned to the surface. The guide had now joined the dog. Grasping the deer with one hand and the dog with the other by the tail, he succeeded by his own efforts, combined with those of his faithful animal,

on whom he hurled a volley of imprecations, in regaining the shore.

The same character, on another occasion, with a frail boat, pursued a deer and finally succeeded in killing it with a paddle. This would not appear so great an accomplishment were it not known that a few minutes before, in attempting to afford a sportsman a shot, the boat capsized, depositing the guns at the bottom of the lake. It was only after the most heroic and self-sacrificing endeavor that he succeeded in rescuing his exhausted employer. Nothing daunted, he drew the boat out on the bank, and after emptying the water, launched it and pursued the game.

For this kind of shooting a .38-caliber Winchester repeating rifle is the favorite arm. Larger weapons are often used for the purpose, but only serve to weary the sportsman without proving in any way superior, unless in making extremely long shots. It is seldom necessary to shoot over a hundred yards, the majority of the shots being fired at half that distance. In localities where there is a possibility of meeting deer at any moment, a large Smith & Wesson, or a Colts revolver, might be carried when a rifle would be undesirable to

shoulder the whole day. With one of these arms surprisingly good results can be obtained.

In hounding and jacking, a generous application of tar oil on the face and hands will secure immunity from the bites of mosquitoes and gnats. Smoking will sometimes secure the same results. To venture into the woods without either would be to bring upon oneself the greatest annoyance and discomfort. The lotion may be purchased already bottled for use, or will be compounded by any drug store clerk.

In cases where several sportsmen watch around a pond, the utmost caution must be exercised that no shots be fired in a direction liable to endanger life. A rifle ball on striking the water will glance in any direction but that of its original flight. Should the deer be swimming toward you or any others of the party it is a wise policy to withhold fire until the best opportunity is presented of killing. In watching on a river one should always be stationed below the entrance of a "runway," rather than above it, for generally on entering the water a deer swims with the current. So silently may they approach that often you have no knowledge of one's presence until it emerges from the

water, and even before one's thoughts can be collected it has disappeared from sight through the dense foliage covering the banks.

The story is related of a sportsman falling asleep when watching a runway. On awakening he was astonished and annoyed to discover himself bespattered with mud. An investigation revealed the startling fact that a deer had leaped directly over him, the imprints of its feet being found on either side of the very spot where he had been lying. The incident is vouched for by others who a few minutes later saw the proof of the happening.

Whether hounding is a legitimate method of hunting this noble game or not must be determined by the sentiment of those sportsmen who engage in field sports through a love of hunting, rather than for the mere possession of the game. When the game is taken in this way the meat is inferior as a consequence of the deer being run long distances; and the sport is often more wearisome than that afforded by the other ways of hunting.

CHAPTER XIX.

Deer Hunting—Still-Hunting.

OF the three commonly employed methods of circumventing and taking the deer, that with which we shall now deal must commend itself to the sportsman as pre-eminently the noblest and most replete with satisfaction. The co-operation of a guide can be dispensed with, thereby affording an opportunity for determining one's prowess, and obtaining the full credit of a successful result. In the Adirondacks, the first fall of snow is welcomed with great joy by the resident hunters and those sportsmen who have deferred their vacation to a season yielding the most varied and fascinating pursuits. These mountainous districts, though now readily accessible from the city of New York, and having many well appointed hotels with doors open all

winter, may be depended on for good deer hunting. The northern portion of the Wilderness will be found to afford excellent sport if visited in the fall. It is reached by the New York Central Railroad to Rouse's Point, thence by the Ogdensburg and Lake Champlain Railroad to Moira. At this junction the Northern Adirondack Railroad carries passengers to some of the best deer and trout localities in the Eastern States.

Taken in connection with the rambles and adventures incident to the pursuit, the sportsman finds ample compensation for any necessary outlay of time or trouble. Some of the sublimest scenes and landscapes that ever enthralled the imagination or captivated the senses are here presented for his contemplation. The light pure air, though the thermometer may fall below the zero point, is such that one suffers less from cold than where it is twenty degrees warmer in the vicinity of the coast. One may travel for miles without experiencing any fatigue, so crisp and exhilarating is the atmosphere.

The still-hunter should be suitably appareled, both to insure warmth and to permit approach to the game with the least danger of exciting suspicion. The dress

should be a light color, thereby best assimilating with the surroundings, clothed in their mantle of snow. A vest lined with buckskin will prove invaluable for excluding the cold and sharp penetrating winds. A coat of the same material will likewise be serviceable. The hair, however, should be always removed from the skin. There is always enough danger of being mistaken for a deer by some over-excitable individual without clothing one's self in the guise of the game. Leather moccasins are necessary to the highest degree of success. They should be well oiled to render them impervious to moisture, and should reach several inches above the ankle. Rubber or leather leggins will protect the trousers and the lower extremities from the dampness on the bushes and grasses. A pocket compass is indispensable to guide the sportsman through the pathless woods. Where there are high mountain peaks, their summits, if discernible, will generally give the sportsman his location. Before deviating from a road or long path that is nearly straight, the bearings should be taken. We will suppose it lies north and south. If an easterly direction is taken, when the hour for returning has arrived, it will be only necessary to travel due

west. A watch, under certain conditions, may be made to answer the purpose of a compass. By pointing the hour hand toward the sun, half the distance between that hand and the 12 mark will be south.

The possession of a knowledge of the country greatly enhances one's success in this kind of hunting. In a section where deer are generally plentiful, there may exist several localities where the prospects of seeing one are almost *nil*, while within a few miles of the same place they would be discovered without difficulty. This may result from various causes, one of the most probable being the greater abundance of natural food in the latter country. Therefore it is desirable that a guide accompany the sportsman on his first excursion into the woods. On his learning the best hunting localities, the guide, if requested, will retire, and leave the sportsman dependent for success upon his own exertions and prowess. The ground selected will probably have been recently burnt over, considerable undergrowth and shrubbery having sprung up, the tender twigs of which afford excellent feeding for deer.

The most propitious day which can be chosen, though perhaps not the most agreeable, is a cloudy

one, when the snow is thawing in the woods. The dark dismal aspect of the woods on such occasions seems to breed in the game a spirit of drowsiness, and owing to the dropping of the thawing snow from the trees, the presence of the hunter is less quickly detected, and the noise of a footfall is drowned by the dripping water. The advantages at such times for the deer's feeding are also increased, because of the soft snow being more easily pawed away than when congealed, and the little vegetation beneath being readily obtained. It is unnecessary to state that the lighter the snow, consistent with ease in discovering and following the deer's tracks, the more rapid and comfortable will be the sportsman's progress. Three inches of snow will generally prove the most satisfactory depth. A crust will be fatal to successful tracking, owing to the unavoidable crunching sound consequent upon each step.

The novice will follow the first track he comes across, regardless of its size. When there are so great a number, both large and small, the advantage of following up the larger ones will be evident. While it may require a greater degree of skill successfully to circum-

vent and shoot a buck than a fawn, the satisfaction of securing such a prize is much greater; and fully warrants the additional time and labor required.

The experienced still-hunter can distinguish at a glance an old track from a new one, and whether made by a running deer or by one walking. The former accomplishment can be acquired only through years of experience and by observation and comparisons of the footprints in the ground. Any attempt on the part of the author to communicate a knowledge of either by pen or word of mouth must prove futile. Whether the tracks were made in running or walking is naturally determined by their distance apart. If in running, they will be found to be separated by distances of from 10 to 20 ft. A deer that has been walking is always preferable for following, the chances then being in favor of its presence in the locality.

The deer's faculties of hearing and smelling are more keenly developed than that of sight. Therefore it is essential to travel as silently as is consistent with proper speed, and to approach from a direction to the windward of the game. By placing the finger in the mouth and then pointing it to the sky, that side which

becomes first cooled will indicate the direction of the wind. It is well to look around frequently, as a deer, on leading a sportsman over a hill, will sometimes pass around its base and cross the pursuer's track on the opposite side. Unless a reasonable shot is afforded it is poor policy to shoot, as on being alarmed the deer will invariably run to such a distance as to preclude the chances of again overtaking him. By exercising sufficient skill and caution, one may again approach it, even after it has once caught sight of its pursuer, when a well-placed ball behind the foreshoulder, or in the neck, will prove fatal. We read frequent accounts of deer escaping after they have been struck with several balls. The shooting in such a case must have been inaccurate, the balls striking well back of the foreshoulder, for one shot, striking a vital spot, rarely fails to prove fatal.

In a country through which fire has swept, the shrubbery and undergrowth having been burnt, success in still-hunting without the presence of snow may be obtained in a moderate degree. When such conditions exist one's vision may range over twenty rods or more. In woods where the foliage is dense, in the earlier part of the fall it is difficult to see objects at distances of

more than ten rods, and under such conditions, unless one almost stumbles across the game, the chances of success are small. In open country, where long views may be had in any direction, the use of a powerful marine glass will be of great advantage in discerning objects at long distances. As noted in the chapter on hounding, deer are in the habit of traveling beaten paths in passing through the woods. No difficulty should be experienced in discovering one of these, as in some woods they cross and recross in endless confusion. By taking his position at a point overlooking one of these paths, one frequently may secure a shot. The first three hours after sunrise and the latter part of the afternoon are the most favorable times. At these times the game generally travels about in search of food, whereas during the day they are lying down, and unless come upon directly and caused to take flight, will be passed undetected.

The chasing of deer by dogs is by many supposed to preclude good still-hunting. We are of opinion that the deer in localities where hounding is permitted are not more difficult of approach than where the practice is unknown. It causes them to be more alert for the

sound of the dogs' baying, and having its senses of hearing concentrated to that end, it is less conscious of the hunter's proximity. Frequently when hotly pressed by the dogs it will swim directly toward the hunter, even after detecting him, in preference to retreating and risking capture by its pursuers. The fact would indicate a greater dread of the hound than of its master. In countries where hounding is permitted, there exists, however, one great disadvantage to the still-hunter. This results from the tendency it has of driving the deer out of the country into sections where they can find immunity from pursuit by the dogs.

During the winter, when deep snows cover the ground, the deer congregate together in small areas of land. This is both for protection against the attacks of wild beasts and for the securing of food. By stamping and scattering the snow under their feet they succeed in getting what little vegetation may exist beneath it. Their numbers being constantly added to, it becomes necessary to enlarge the yard by tramping down the snow around its borders. As the snows deepen, the deer become practically prisoners, the yard being surrounded by perpendicular walls several feet in

J. S. Burroughs



THE WOUNDED DOE.

height. When the winters are long and more than usually severe, their numbers are greatly reduced, causing poor shooting the following season. Unscrupulous hunters often enter these yards and with a club or knife slaughter dozens of the poor animals, now exhausted for lack of proper subsistence, and incapable of offering any resistance. Such nefarious practices cannot excite too great indignation, and the perpetrators should receive the utmost penalty that can be inflicted. The folly of their deeds is intensified by the fact that the animals are then unsuited for food.

One fall, a few years ago, the author fatally wounded a doe. It made a noble attempt to escape, but sank exhausted to the ground in an endeavor to leap a log intercepting its path. On overtaking it he was much moved to pity at witnessing its complete helplessness. Its head was turned, and its face uplifted to him beamed with indescribable loveliness. The eyes were radiant with expression, and seemed to plead for that mercy which is as dear to the lower animals as to dominant man. It so touched the chords of compassion that for months afterward he could not be induced to kill another deer.

That the laws regulating the killing of this game are more efficient and are enforced with greater stringency than ever before, is a fact attested by every close observer. There are yet a great many improvements which proper legislation may bring about and which must be effected if the future generations are to engage in this noble and most captivating amusement.

CHAPTER XX.

Hunting the Grizzly and Black Bear.

HOWEVER enthusiastically the sporting author may proclaim the superiorities of his favorite pastime, no other, however captivating, can excel in amusement or wholesome excitement the pursuit of the bear. There are several species of this game inhabiting North America, most formidable among them the grizzly. Ephraim, as he is popularly known in sporting parlance, exceeds in strength and ferocity his congeners, though the polar bear attains to a greater stature.

In length the grizzly is nearly 8 ft., with girth in proportion. There is much difference of opinion as to the maximum weight. We frequently read of a grizzly being taken that tips the scales at 1,200 lbs. It may generally be stated that such reports are unverified.

Bears have been captured, however, whose weight was authenticated to have been not less than 1,000 lbs.

The color of the hair varies considerably in individuals, and the existence of a distinct species, the cinnamon, has been admitted by some, but the cinnamon is probably identical with the grizzly, the color of the hair winning for it another name. The fact that, on occasion, two cubs have been captured after the mother's death, and that the color of one was brown while that of the other was gray, confirms the correctness of that classification which makes the cinnamon identical with the grizzly.

The wild, rugged, and sometimes impenetrable character of the country where this sport is followed, combined with the ferocity of the game, has tended to preserve the stock, so that good opportunities for hunting are not wanting. Wyoming and Montana perhaps offer the best fields for the pursuit of the game. The hunting country is reached by the Northern Pacific R. R.

The sportsman who attempts the capture of a grizzly bear must be endowed with great courage and an alert eye; and must be armed with a weapon not liable to derangement at the critical moment nor wanting in exe-

cution. So fitted for it, he will find that the danger attending the sport is comparatively small.

The early settlers were armed with a light, single-shooting muzzle-loader, known as the Kentucky pe-airifle, and a long sheath-knife. With these primitive weapons they were often victorious after encounters with the grizzly. The arm carried a ball approximating the .32-caliber of the present day. The most effective weapon with which to hunt this terrible animal, and one which the author can recommend from personal experience, is the 1886 model Winchester of .45-caliber, carrying a solid ball. The explosive ball is extensively advocated. In open country its employment may be advantageous, but in woodland hunting it is worse than useless; because of the intervening branches, on striking which, before reaching the mark, it is instantly demolished and rendered useless. The .45-caliber is charged with 70 grs. of powder and 405 grs. of lead. A dozen or more cartridges are carried, according to the length of the barrel. With such a weapon for the hunter to fall back on in case the first shot proves ineffective, the odds are much against the bear's escape.

There are incidents narrated, and probably they are true, of grizzly bears receiving the entire contents of a .44-caliber Winchester, sixteen balls, and then charging upon its antagonists. The explanation of this extraordinary performance lies in the fact that no bullet had hit a vulnerable spot. When a ball has lodged itself in the brain of the victim, or pierced its heart or lungs, the chances are as one to fifty of its resisting further.

Authenticated cases, however, are on record of bears running more than twenty yards after being shot through the heart. From this circumstance it will be seen that however cool the sportsman's nerve and accurate his aim, escape from the onset of the infuriated monster may on occasion prove impossible.

The grizzly is omnivorous in its habits, living well alike on either animal and vegetable food. His inordinate fondness for the honey of the wild bee is turned to good account by sportsmen and trappers acquainted with this taste. They procure several pounds of the tempting article, saturate it with whisky, put it out on a favorite feeding ground, and then return home to await the result. If there be a bear in the locality it will not be long before the seductive sweet is scented.

Discovering the luscious repast, Ephraim incontinently disposes of it, the whisky rendering it all the more palatable. He immediately becomes intoxicated, and after the fashion of the human imbiber, rolls over and prepares to sleep away the effects of his indiscretion. Found in this condition, he is readily dispatched by the hunters.

Capture by means of poisons is objectionable, on the ground that it starts the hair, besides poisoning the flesh. The bear is also very partial to the flesh of the bison, and is frequently seen hanging about the flanks of the herd, probably with an eye to a wounded or decrepit animal which is easily struck down with its powerful forepaw. In attack, it uses its teeth and claws with terrible effect. The claws, which may be six inches in length, are used with terrific force upon the hapless victim of its charge. No known animal, not excepting the terrible puma of the Rockies, and fierce wolf of the plains, will approach a dead grizzly. Even its skin thrown over the flesh of other game insures a certain protection from the ravages of beasts of prey.

It has been said that a grizzly will never make an at-

tack unless instigated by anger, or forced to fight for its life. The experience of a party of hunters in the Shoshone Mountains, in northern Wyoming, is contrary to such a belief. They had killed an elk on the previous day, and on returning to it had stood their rifles up against a tree, and unwisely so, as the sequel shows. While they were preparing the elk for removal, they were startled by the sight of a grizzly charging upon them with great fury. To reach their guns before the bear came was impossible, and the only alternative was to stand their ground like men. Drawing their knives and making a great display by throwing their caps in air and shouting like a tribe of Comanche Indians, they succeeded in turning the creature's course; and then they had the satisfaction of seeing it disappear over a knoll of underbrush.

After killing its prey, the bear does not immediately eat it, but covering it over with leaves, returns at a later hour to partake of the reward of its labors. This habit is a great boon to the hunter overcome by a bear. When all chances of escape by flight are lost, he simulates death and is dragged a few yards and interred with dirt, leaves and sticks. The moment the bear

retires, out slips the man and runs with all speed to a place of safety.

Yet, with all its ferocity, the grizzly is not without that instinctive fear of man, which causes it to retreat whenever it discovers that the air is tainted with his presence. A young man, walking through the woods unarmed, encountered a large bear coming directly toward him. Knowing what the effect would be, he ran rapidly to the windward of the animal. It immediately showed signs of uneasiness, and sniffing the air two or three times, ran off in the opposite direction.

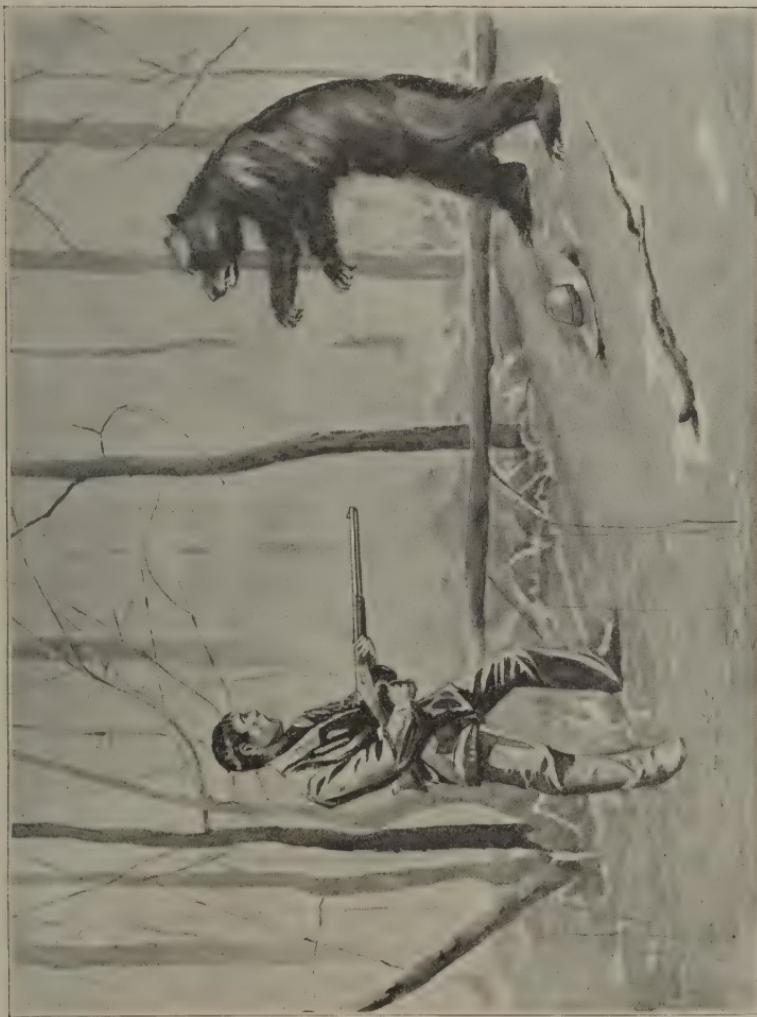
Like its congeners, the black and polar bears, the grizzly hibernates in the winter. It becomes very corpulent at this season; and the fur and flesh are highly prized, and sought with great eagerness and enthusiasm. There are a few weeks toward the last of October and in November when it can be still-hunted —that is, followed by the tracks in the snow. It generally retires to its winter retreat shortly after the first deep snow, and does not venture forth again till revived from lethargy by the genial warmth of spring. Its young are brought forth some time in January, the

number not exceeding three. On issuing forth with her cubs, the female is more than usually fierce, and will charge with the greatest fury upon whatever provokes her offspring. At this time the females and their young keep aloof from the males.

The possession of a mat made from the grizzly's skin is one of the most valuable trophies the sportsman can possess, if he himself has been its captor, or has even participated in the feat. To have secured it unaided, is of course the most pleasing, for then he may take all the glory to himself. The hair of the younger animals is finer and more glossy; but as there is less honor attached to the taking of a small bear than to securing a large one, the big fellows are sought with the greater zeal. The claws of the foot are worn as a necklace by some northern tribes of Indians, and since they may be worn only by those who have themselves effected the capture, the distinguished wearer is looked upon with admiration and envy.

The flesh of a cub is considered a luxury by the epicure, but the meat of the old bear is strong, tough and stringy, and is eaten only when necessity demands.

The black bear is found throughout the United



FACE TO FACE WITH EPHRAIM.

States where the country is sparsely populated. The Indian name for it was *musquaw*. Contrasted with the fierce grizzly, it possesses a timid and retiring nature, seeking safety by flight, and only deigning to fight when driven to do so by anger, or when all avenues of escape are cut off. It was at one time very plentiful throughout the eastern section of the United States, but so unremitting has been its destruction, that few now are killed in those localities where they once abounded. An oil extracted from its fat has the repute of being an infallible hair rejuvenator. Several gallons of oil are obtained from a single animal, and as it realizes fifty cents a pint, the inducement for taking the animal is great. The largest black bears weigh about 400 lbs.; and from such an animal considerable profit may be realized. The skin alone commands from \$15 to \$30, according to its size and the season of its capture.

In the South the black bear is pursued with dogs, a small species of terrier being used. Snapping at the legs of the game and jumping quickly away, they so irritate the bear as to keep him constantly turning and snapping at his tormentors. Guided by the yelping of

the dogs, the sportsman soon overtakes the bear and dispatches it before his approach is detected. The bear will sometimes climb a tree to avoid its pursuers, but this is not usual. When the animal's course is known it is sometimes headed off, or is shot by hunters stationed at points in its path.

The prodigious strength of the black bear enables it, while walking on its hind-legs, to carry a deer between the fore-legs. On one occasion, when the author and two companions returned to a spot where we had left a deer on the previous day, we were surprised to find it gone. Examining the ground, we discovered the imprints of a bear's hind-feet in the soft mud. Following them a few yards, we discovered the deer, portions of the back and neck having been eaten. There were no signs to indicate that the carcass had been dragged, and as the imprints of the hind paws of the bear only were visible, the conclusion was that it had carried the deer in the manner described. The deer weighed upward of 200 lbs. That night a friend, to whom I had confided the story, watched the spot, and was rewarded by killing the thief.

If any of my readers are in a locality infested by

these animals, I would suggest that a spot be baited with either pork or, if procurable, the waste part of a deer. Directly following the taking of the first instalment, place some more in the same spot and watch it closely. The chances are that before many days you will have the satisfaction of getting a shot, and maybe the game itself. Owing to the bear's habit of walking a beaten track, it is sometimes only necessary to place a trap without bait in the trail to catch the animal.

While the black bear is captured with much less risk and labor than attends the hunting of the grizzly, the possession of its skin is a great source of congratulation, and the incident of its capture a most pleasant memory.

CHAPTER XXI.

Squirrel Hunting.

SQUIRREL hunting is one of the minor legitimate pursuits of the sportsman ; and in localities where followed with prospects of success, it affords the liveliest amusement. Unfortunately, the rapid decrease in the number of gray squirrels during the past ten years has rendered exceedingly precarious the prospective results of a day's excursion into the woods after this nimble little rodent. The sport is one of the few in which dogs and modern shooting appliances are not essential for the realization of the highest degree of pleasure or excitement.

Vividly can the author recall the experiences of his schoolboy days, when with a score of urchins he pursued with eager enthusiasm these capricious little

creatures. When not molested, the gray squirrels frequent the same localities year after year; this habit enabled us to locate the game whenever we sought a victim for our amusement. When we had discovered a squirrel, the tree in which it had sought safety was immediately surrounded, the best climber ascending as nearly as possible to the spot where the game had retreated; then with shouts and shaking of the limb, he compelled the squirrel to jump. Inflating its supple body and bristling up the fur on its tail, it glided to the ground as lightly as a leaf. On alighting it was immediately besieged by a volley of missiles, sticks, stones and hats, in the hope of disabling it or imprisoning it. One boy, more dexterous than the rest, throws a cap directly over the victim, and summons his companions to view the capture. They gather excitedly around the victor. The hat is gently raised; but in the eagerness and excitement of the moment, the squirrel escapes and scampers off through the undergrowth; or, if it runs up some tree distant from the rest, the scene is again enacted. Sometimes seeking safety in a field of grain, it is espied and pursued; then, unable to run between the thickly standing stems, it jumps up and down

almost perpendicularly in its progress, until becoming exhausted, it is readily caught.

The gray squirrel constructs its nest in the fork of the top of some tall pine or chestnut, or it may remodel some crow's nest of the previous year's building, and improve it by the addition of a roof. It also frequently makes its cozy little home in a deserted woodpecker's hole. The young, brought forth generally early in May, are four or five in number. If taken within a month of their birth, they are easily tamed and become great pets. If they are not confined, however, they will soon return to the woods.

The gray squirrel commonly frequents groves of beech and chestnut, showing a predilection for highlands. The hours most favorable for hunting it are those following and preceding the sunrise and sunset. About noon they are inactive, reposing in their nests, and the sportsman's chances then are meagre, unless he intends to shoot into the nests. In localities where they are plentiful, the patter of their little feet is often heard as they run to and fro, or taking alarm, scamper quickly up some tree, keeping always on the side opposite that of the hunter; and as he moves around they

move also. Because of this, two hunters should always hunt together, rather than one alone, for with one it is very difficult to secure a shot, owing to the ability of the game to keep on the opposite side of a limb. When a squirrel has ascended to the topmost branch of a tall chestnut, and lies crouched to some limb, there is required considerable searching to discover it. But once being discovered, its career is quickly closed by the death-dealing shotgun, and the excitement attendant on that squirrel's capture at least is brought to a close. The sportsman armed with a rifle, however, has his amusement indefinitely prolonged, for should his aim prove defective, the squirrel will sometimes crouch only the more closely to the limb, seeking thus to escape the scrutinizing search of the hunter.

In the author's judgment, the ideal arm for squirrel shooting is a .22-caliber repeating rifle. Such an arm is manufactured by several American firms, and may be had for about \$15. At distances within 50 yds., which is as far as one is generally required to shoot in squirrel hunting, it will prove very accurate, while the ball is sufficiently large to kill small game when properly aimed. The cost of ammunition for the .22 is

very reasonable; cartridges may be bought for twenty-five cents a hundred. Another advantage arising from the employment of such a weapon is that its report does not alarm the game so much as when a larger and louder arm is fired. Moreover, its shorter range reduces the possibility of endangering human life or destroying property, for the ball spends its force before it has traveled far. The chief objection to employing fire-arms of small caliber is the difficulty of keeping them clean. A very little dirt in the barrel will preclude good shooting, and the writer finds by experience that wiping out is necessary after every twenty shots.

Squirrels may be attracted to a locality by throwing corn or nuts in a place where they are frequently seen. Should it be in the autumn, bait thus scattered will soon be carried away and stored in some nook or crevice of a tree for the winter's supply. While after nuts in the fall the writer has frequently come upon one of these storerooms where several quarts of chestnuts had been collected. They do not hide all the nuts in one place, but in several, and always cover them over. It appears remarkable that they should return to the

precise spot where the stores lie concealed, even after several months have elapsed since their hiding.

As has been said, the opportunities for engaging in this sport with success are small, owing to the ruthless slaughter of the squirrels in seasons past, both for the gratification of the sportsman and for the profit of the market-hunter.

In spring and summer they are thin and not suitable for the table; but on the approach of fall, when their natural food of nuts becomes abundant, they soon fatten, and are then not unpalatable when broiled and served after the manner of chickens. In flavor they closely resemble the rabbit, though their flesh is decidedly coarser.

CHAPTER XXII.

Muskrat Hunting.

ONE might naturally imagine that the pursuit of the muskrat was devoid of pleasure and excitement, and unworthy the true sportsman's notice. But those who have realized the delight and satisfaction incident to the sport must always contemplate another excursion after the gentle and playful creatures with much pleasure and enthusiasm. A hunt in which the author once participated was so fraught with rare and exhilarating enjoyment that he is prompted to recount it. If in doing so he shall communicate to his readers a few of the delightful impressions he himself received, they will add a new kind of hunting to the list of those already pursued, thereby increasing their resources of finding pleasure with the gun.

The 20th of October was the day decided upon for a muskrat hunt; and when it came every condition was as favorable for success as mortal could desire. During the day the muskrats rarely venture from their burrows unless the waters rise sufficiently to cause them to come out through fear of being drowned. Between sunset and sunrise, however, they may be seen swimming in every direction in the stream until some unwelcome sound causes alarm, and they all disappear beneath the surface. The stream being narrow they will probably remain submerged until reaching the burrows which enter the banks beneath the surface. The time we had selected was late in the afternoon.

About four o'clock I was met by my hunting companion, and together we set off for the scene of action. Our destination was a picturesque little pond slumbering quietly in a dense forest of pines and hemlocks, as serenely and contentedly as a babe on its mother's breast. Its charm and solitude had as yet been untainted by the destruction of the surrounding woods, and were it not for the knowledge of the country possessed by my associate I could not have discovered the spot. After a brisk walk of thirty minutes we

reached the bank, and immediately took the positions from which we were to watch.

The last beams of the descending sun illumined the surface of the pond, which glistened like molten silver. To insure success it was necessary to shield ourselves from discovery, should an animal swim out into the water. A pile of driftwood afforded the protection, and behind it I carefully concealed myself. Scarcely was I comfortably ensconced, when I perceived a silvery trail extending out into the pond. Following it with my eye, I espied a muskrat swimming swiftly but silently away from the bank. I raised my gun to shoot, but the sharp crack of a rifle showed that I had been forestalled. My colleague had shot from the opposite shore and had killed his game. After a few minutes of patient waiting another opportunity offered. This time I was more successful, killing the muskrat within a few feet of the shore.

As the gloom deepened, our range of vision diminished, and objects were discernible only at a distance of a few yards. The quiet beauty of the scene so absorbed my thoughts for a time as to cause me to be oblivious to everything going on about, when suddenly

THE HAUNT OF THE MUSKRAT.



I was startled from my train of reflections by a splash immediately at my feet. Looking down I discovered a muskrat swimming directly away from my place of concealment. I hurriedly raised the gun and shot at the retreating form. So alert was it, that instantaneously with the flash it dived; the shot struck the water at the point of its disappearance. Another chance of killing it was precluded, for it continued submerged until it regained the burrow, or else it returned to the surface at a point where the darkness prevented its detection. Owing to this tendency of the muskrat to dive at the flash of the gun, it is prudent to shoot from behind a bush or pile of driftwood.

The darkness soon prevented our continuing the sport; and after paddling out into the pond and retrieving what animals had been killed, we started for home. As we gradually increased the distance between ourselves and the pond, the splashing of the muskrats as they disported themselves in their familiar element, became less and less audible, until at last it entirely died away. The hunt gave us seven skins, which we prepared on boards cut for the purpose, and hung up in the woodshed to dry.

The flesh, though esteemed as a delicacy by the Indians and certain white hunters, is not craved by most palates. The hind-legs are the only parts generally cooked, though the entire flesh may be eaten. Being very tough and of a fibrous texture, it should be well parboiled and then roasted over a hot fire. A few years ago, through the earnest request of his hostess, the author partook of the flesh of one of these animals; it was tough and of a strong flavor; and however highly it may be esteemed by others, we would prefer another diet than that of muskrat flesh.

By secreting oneself on moonlight nights, on the bank of some river where these animals live, very satisfactory and profitable sport may be obtained. Absolute stillness is essential to the least success, for if one's presence is betrayed, though only by the clicking of the gun hammer as it is raised, the alarm is general among them. On such a night, when little wind ruffles the surface of the water, they may be seen swimming in every direction, leaving in their wake a trail of burnished silver, which often attracts the sportsman's attention before the animal itself is detected. When they are lying on the bank of a stream their color

so closely resembles that of the mud that it is very easy to mistake one for a lump of that substance, until a movement dispels the illusion.

Those who live in the vicinity of meadows, where the tides rise sufficiently to inundate the land, may have grand sport during the day. At the approach of high water the burrows are completely submerged, and the inmates are compelled to vacate them to avoid being drowned. At such times a light, flat-bottomed boat may be poled over the meadows, and good shooting may be obtained at the animals swimming in every direction. As they can swim long distances beneath the water, and on reappearing may protrude only the mouth and nose above its surface, the first shot should be made as effective as possible. When killed they will invariably float.

A charge of powder as heavy as may be consistent with the capabilities of the gun should be used, with No. 8 or No. 9 shot. As the hair thickens during the winter months, and the skin lies loose upon the body, an ordinary charge will be inadequate.

A favorite implement employed by those who hunt to secure the skins for market is a four-pronged spear.

All entrances to the burrows are closed but one, and when they attempt to escape they are intercepted at the one exit remaining open. They sometimes build houses of sticks and mud which rise three or four feet above the ground, and resemble a pile of driftwood. Into one of these the spear is driven with great force, in the hope of impaling one of the inmates. An assistant then tears the structure away, and the unfortunate animal is immediately dispatched. A spaniel is of great value for discovering and leading the way to a muskrat house.

In size, a muskrat equals a medium-sized rabbit, being a little over two feet in extent, of which length the tail makes about ten inches. The fur is of a darkish brown, thickly interspersed with long hair of a shiny black, and the texture is very soft and silky. Having a commercial value of from ten to twenty-five cents, they are assiduously pursued throughout the country, the annual shipment of the furs being almost incredibly large.

Muskrats subsist chiefly on vegetable diet, though clam shells are often found in their burrows; and they are sometimes discovered in the act of devouring a fish.

Though they travel on land with great awkwardness, they are frequently found at a distance of more than a mile from water. When attacked, with every avenue of escape cut off, they will jump at their enemy with considerable violence; and their sharp teeth are capable of inflicting a painful though not a fatal wound.

Those sportsmen who hunt for the pleasure incident to the pursuit, rather than for the greed of possession, will find ample scope for displaying their prowess and marksmanship in this kind of hunting, and for any expenditure of time and trouble necessary to engage in it, will be fully rewarded by the healthful and exhilarating exercise of both mind and body.

CHAPTER XXIII.

“ Oh ! the dew lies fresh on the clover,
And sweet is the morning air,
The sky hangs lovingly over
And smiles at a world so fair.
The birds and the crickets are singing
To welcome the morning light,
And up from the meadow comes ringing
The musical call of Bob White.

* * * * *

“ Oh ! bonny brown bird of the meadow,
Ring out unmolested thy call ;
Thou’rt safe, for the pot-hunter’s fell shadow
On the ‘Pomegranates’ dares not to fall.
In orchard, or meadow, or viney,
Still welcome to me is the sight
Of thy simple, yet dainty brown finery,
My brave little neighbor, Bob White.”

Quail Shooting.

THE Virginia quail is found generally scattered throughout the United States, from Canada on the north to the peninsula of Florida on the south.



BOB WHITE.

It is most assiduously sought; and were it not for its extreme fecundity, it would be in danger of rapid extermination. Its pursuit, unlike the shooting of wild fowl, may be enjoyed on warm genial days; and when the birds are abundant, with comparative ease and comfort. As a result, even the old and moderately infirm may find in it a most pleasurable diversion, and indulge their hunting inclinations by shooting this quiet and harmless little bird.

In the sweet and mellow days of early October, when the woods are dyed with the rich and variegated tints of autumn frost, and when the air is redolent with ripened fruits, what delight is found in the fields! The clear liquid call of the quail thrills the sportsman with rapturous longings, and he takes his gun down from the rack, where it has hung for many months, calls his dog and visits the open fields. If he has hunted the same country in seasons past, he can doubtless travel directly to good localities for quail.

The most propitious days for quail shooting are those when the air is flooded with sunshine. At such times the quail will be found in the middle of fields, bathing themselves in the genial rays of the sun, and a

result of their disposition to roam in such weather, is that the ground is covered with their tracks. The dog will discover their presence by the scent on the ground, without requiring to come directly upon them before marking the birds out for the sportsman. On cold blustering days, especially when there is much rainfall, the weather seems to breed within them a spirit of restlessness, and while they flush often at long range, they prefer generally to remain in the stubble, concealed in heaps of brushwood and leaves.

While mid-day would in all probability be the best hours in which to hunt them, should others not have anticipated you, the chances are that they will be so dispersed by early excursionists into the fields, that one will find difficulty in locating them. In cases where the sportsman owns a preserve and rigidly prevents others sharing his shooting privileges, the warm sunny hours between 11 and 3 o'clock will be found most favorable for good sport. Frequently, when much shot at, the birds fly long distances back into the woods, where, owing to the thick foliage which shuts out one's vision, successful hunting cannot be had. This is generally the case late in the season; the birds then

growing wild and frightened, retreat to the woods; and when they are not found in their previous haunts, the opinion prevails that they have been nearly exterminated.

The flight of the quail is very direct, and though it is rapid, the bird is easily killed after a little experience in this kind of shooting. In confined fields, narrow and hilly, the birds fly only a few rods, when by marking where they alight, one may sometimes kill the whole bevy by following them up. In large open tracts, especially where the ground is level, the quail will often extend their flight for more than a mile. This is particularly noticeable during the last days of the shooting season, when the birds become very wild. At such times the author has found quail caught by the legs in muskrat traps, which had been set in the burrows. The frightened birds had sought safety in entering the holes.

Their habit of roosting together in a bunch near the middle of some field is well known. They generally lie in a circle, with heads on the outside, by which disposition each bird becomes a sentinel to detect the approach of danger. The spot where they thus lie

together seems to be resorted to every night; and unscrupulous hunters, by shooting into it at dusk, often kill ten or twelve birds at a single shot. One man very proudly informed the author that he knew of several of these places, and had by such means killed over fifty quail in one week.

In the autumn the call of the male is more frequent than that of the female, and by imitating it the sportsman may sometimes bring the bird within range. It will generally answer the whistle, and thereby afford an indication of its whereabouts. The call is clear and loud, and owing to its resemblance to the pronunciation of the words "Bob White," the bird has been given that name.

Dogs are an absolute necessity if quail shooting is to be pursued with any chances of success. On account of its keener scent, better judgment and quicker movements, the English pointer will be found superior to the setter. As the quail is followed mostly in pleasant weather and where there is little if any undergrowth, the setter, with its rough coat and rugged nature, possesses no advantages over the more delicately constituted pointer.

A 12-bore gun of $7\frac{1}{2}$ lbs. will be found the most desirable weapon to employ. The pleasure of long walks is not enhanced by burdensome arms. The load should be 3 or $3\frac{1}{4}$ drs. of powder and $1\frac{1}{8}$ oz. of No. 8 or No. 6 shot, the heavier charge and coarser shot being the more efficient of the two when the game becomes wilder and flushes at long range.

It is recommended that if the sportsman resides in the hunting locality, several excursions be made into the fields before the season for shooting begins. He need carry no weapon, but merely ascertain where the birds are most plentiful, in order that when he finally goes out to hunt, the necessity of finding the best localities may be dispensed with. When one goes into a new country to hunt, the services of a guide will be required at least for the first few days if successful results are to be obtained. Later on, after the sportsman has become familiar with the best shooting grounds, he may pursue the sport unaccompanied.

The quail is not properly migratory. The author is of the opinion that in the late autumn the birds will be found several miles distant from where they were found during the earlier months. This slight change from

one place to another is in some degree influenced by the extent to which they have been persecuted, but more probably by their feeding habits.

In severe winters the quail often mingle with the barnyard fowl, picking up the corn that is thrown among them. The author remembers one bird that remained about the barnyard throughout a winter, eating with eagerness crumbs of bread tossed to it. The following spring it found a mate, and together they built their nest in the orchard back of the house. This was neatly constructed of grasses, and a covering over the top of the same material gave it a very cozy appearance. In this were deposited twenty-two eggs of a dirty white appearance, approximating the size and shape of a small English walnut.

Immediately after birth the young can run with remarkable rapidity, and are guided by the parent to the best feeding grounds. On spying an enemy the mother feigns lameness, and limping away endeavors to lead one astray. This successfully accomplished, she returns by a circuitous course to her offspring, which in the meantime have hidden in the grass or behind tussocks of weeds.

The eggs of the quail placed under a hen for incubation have invariably hatched out. While they may associate with the barnyard fowl for a few weeks, the young birds will sooner or later escape to the woods.

The author has little faith in any superior shooting to be gained by stocking a preserve with quail unless it be an island distant from the mainland. To liberate a thousand quail in a locality and expect to obtain good shooting in the vicinity in the following season is most unreasonable. The birds disperse to such an extent that in a few months from the time of their release as many of their number will be found five miles and more from that spot as will remain where they were first placed. A few years ago a certain locality in New Jersey afforded excellent quail shooting. A club was organized ; the land was secured ; and, after fencing it around with wire netting, it was stocked with quail. Despite all these improvements, the shooting in subsequent seasons was even poorer than before.

By October the young birds of the same year's hatching are equal in size to the parents, and the buckwheat fields afford them such an abundance of rich and fattening food that at that season they become

very plump and delicious. Their chief food consists of different grains, seeds, insects and berries of various kinds. Though rich and delicious, the flesh cannot be partaken of with regularity; eating it for a few days in succession one is likely to find a continuation of the diet impossible.

The quail, as it is called in New England, or the partridge in Pennsylvania and the Southern States, is 9 in. long and 14 in. in extent; the bill is black; line over the eye, down the neck, and whole chin, pure white, bounded by a band of black, which descends and spreads broadly over the throat; the eye is dark hazel; crown, neck and upper part of the breast, red-brown; sides of the neck spotted with white and black, on a reddish-brown ground; back, scapulars and lesser coverts red-brown, intermixed with ash, and sprinkled with black; tertials edged with yellowish white; wings plain dusky; lower part of the breast and belly pale yellowish white; beautifully marked with numerous curving spots or arrow heads of black; tail ash, sprinkled with reddish brown; legs very pale ash.

The female differs in having the chin and sides of the head yellowish brown.

CHAPTER XXIV.

"See ! from the brake the whirring pheasant springs,
And mounts exultant on triumphant wings."

The Ruffed Grouse.

THIS bird, so dear to every sportsman, is found in varying supply over a large area of the United States. It has very appropriately been dignified with the appellation of the king of game birds.

Unlike the quail, the grouse show little disposition to feed in settled localities, and are seldom found in open fields. Their chief haunts are on the slopes of mountains sheltered with pine. Those forests in which there is found a generous growth of hemlock, pine and spruce, seem most congenial to their tastes, and in such solitary and secluded regions they can often be found in large numbers. During the summer and early

autumn they go in bevvies of from eight to twelve and even fifteen birds. During November and the ensuing months to the following summer, they live singly or in pairs. In summer their food consists chiefly of raspberries, leaves and grasses. In October they feed on the rich and wholesome beechnuts and the little red aromatic partridge berries. These last impart to the flesh a very peculiar and delicate flavor. In seasons when there is an abundance of beechnuts, the birds gorge themselves with these, and become exceedingly plump and palatable. During the winter months, deprived of their favorite food, they have recourse to the buds of the laurel, which being poisonous, are supposed to render the flesh inedible. There are on record instances when those who partook of their flesh at this season have died as a consequence. The fact is, however, that thousands of the birds are sold annually in the New York markets when their crops are distended with the buds, and this shows convincingly that there is little danger to be feared. Notwithstanding, there could be no harm in thoroughly dressing a grouse immediately after killing it, by which precaution any possible danger would be prevented.



RUFFED GROUSE.

Around sparsely settled localities, where the foliage is only moderately dense, and a dog may be seen for a reasonable distance, the pursuit of the ruffed grouse may be undertaken in a manner similar to that described for quail shooting. The only difference is that the birds will remain in sight for a much shorter period; and to be successful, snap or very quick shooting will be necessary. As the flight is at first much less rapid than that which is attained after traversing a few rods, a much easier shot will be obtained if he aims and fires quickly. On flushing, the partridge flies with such a whirring sound as often to disconcert and frustrate the inexperienced gunner. This sound is occasioned by the shortness, concavity and rapid motion of its wings, and the comparative weight of its body. Before the birds have become wary as a consequence of the unceasing persecution they suffer during the fall, on taking flight they generally alight again within a hundred yards. Their flight is comparatively in a straight line; the sportsman then, by traveling in the direction of the flight, may often flush the game and secure another shot.

Frequently, especially in the spring, one is guided

to the location of the partridge by the singular sound which the bird produces, called "drumming." The precise manner in which this is caused is a mooted question. It is generally asserted that the bird beats his wings against his inflated body, while others equally competent to express an opinion believe it results from the wings striking a log, to which the bird is obliged to resort before producing it. Wilson's description of the performance is so admirable that the author cannot refrain from reproducing it: "In walking through the solitary woods frequented by these birds," he says, "a stranger is surprised by suddenly hearing a kind of thumping very similar to that produced by striking two full-blown bladders together, but much louder. The strokes at first are slow and distinct, but gradually increase in rapidity till they run into each other, resembling the rumbling sound of very distant thunder, dying away gradually on the ear. After a few minutes' pause this is again repeated; and on a calm day may be heard nearly a mile off. This drumming is most common in spring, and is the call of the cock to his favorite female. It is produced in this manner: "The bird, standing on an old post or a log, gener-

ally in a retired and sheltered situation, lowers his wings, erects his expanded tail, contracts his throat, elevates the tufts of feathers on the neck, and inflates his whole body, something in the manner of the turkey-cock, strutting and wheeling about with great stateliness. After a few maneuvers of this kind, he begins to strike with his stiffened wings in short and rapid quick strokes, which become more and more rapid, until they run into each other, as has already been described. This is the most common in the morning and evening, though I have heard them drumming at all hours of the day."

Toward night the partridges fly on to a limb and roost together as do poultry on the hen roost. They generally resort to the same spot each night, so the sportsman who has discovered the tree can visit it toward dusk and realize a shot. When the deep snows of winter cover the ground these birds first fly up into a tree, and then dive with much force into the downy mass. While they are thus afforded warm quarters, a crust often forms over the surface during the night, and the imprisoned birds fall an easy prey to fox, sable or other carnivorous animal.

The method of shooting partridges in such districts as the Adirondack Mountains is different from the one mentioned and much more effective. In these rugged localities the abundance of foliage and undergrowth precludes the possibility of watching a dog's movements, even at close range. A pointer is consequently of no value for hunting in densely wooded lands. The resident hunters visit the woods with the most disreputable cur they can find. A rat terrier is very useful. In chasing through the woods the dog frightens the partridges, which immediately alight in a tree, under which the dog begins to howl. The birds seem to manifest a strange infatuation for the dog, and gaze at him so fixedly that the sportsman, guided by the cry of the dog, is enabled to approach within even a few feet of the spot before alarm is finally taken. By exercising the precaution of shooting the lowest birds first, the whole flock may sometimes be destroyed. If those in the highest branches are killed first their bodies drop through the twigs and cause the others to take flight and escape. This method of hunting may not be highly legitimate, but it is in a degree justified, being the only successful one practicable in such sections.

Still-hunting is a very popular, though not generally compensating manner of hunting this game. The sportsman follows old "tote" roads overgrown with raspberry and other bushes, and frequently flushes a bird which by snap-shooting may be bagged before it attains the woods.

The most propitious day in which to pursue either of the above methods successfully, is one when much rain falls and the weather is cold and blustering. At such times the birds seem more than usually active in seeking food, and the prospects of discovering them are most favorable. Early morning is the best portion of the day in which to pursue the sport, the birds at such hours being abroad in quest of berries and other food, whereas later on they generally roost in the branches of trees, where none but the most practiced eye can discover their presence.

In April the grouse pair; and in the following month construct a rude nest of grasses and leaves under the shelter of some log or stump. In this are deposited about twelve eggs of a brownish white, somewhat larger than those of the pigeon, but of a similar shape. The young run with much speed and vigor immediately

upon breaking their shells, and are attended by the mother with the most solicitous care. A few years ago, on an old country road, the author came upon a mother partridge with her brood, and was immediately assailed by the bird. She presented so formidable an attitude, and attacked him so defiantly, that the offspring had ample time to escape, while his thoughts were centered on the parent. As soon as they had disappeared into the cover on one side of the road the mother flew into the woods on the opposite side, by which ruse, doubtless, she hoped to mislead the intruder as to their location.

The eggs of the partridge have been successfully hatched out under a hen, but the young birds invariably die before attaining their growth. Yet, if taken in a wild condition, partridges may be domesticated, when they will strut about the yard with as much stateliness as the most dignified rooster.

Every autumn thousands of these noble birds fall victims to the snares and traps which infest the woods in every locality in defiance of the stringent laws prohibiting their use. Perhaps to the deadly effectiveness of these contrivances more than to all the guns shot

each fall, may be attributed the appalling decrease of game. The most strenuous measures should be taken to suppress their use, and if possible to secure the punishment of the culprits. These remarks are not aimed so much at the farmer's boy, who captures often ten times as many as the average sportsman shoots, but to that class of marketmen who have neither scruples nor discretion. These men, as they themselves have informed the author, set from a hundred and fifty to two hundred snares at one time, and in a favorable season catch from ten to fifteen birds a day.

The flesh of the partridge is held in less esteem than that of the quail; but it may be partaken of regularly, an advantage not found in the other. Yet from the greater stateliness of their flight, the greater skill required to bring them to bag and the beauty and size of the birds, to shoot one is a most pleasant experience, and one not easily forgotten.

Description.—The pheasant or partridge of New England is 18 in. long and 23 in. in extent; bill a horn color, paler below; eye reddish hazel, immediately above which is a small spot of bare skin of a scarlet color; crested head and neck, variegated with black,

red-brown, white and pale brown; sides of the neck furnished with a tuft of large black feathers, twenty-nine or thirty in number, which it occasionally raises. This tuft covers a large space of the neck destitute of feathers; body above a bright rusty color, marked with oval spots of yellowish white and sprinkled with black; wings plain olive brown, exteriorly edged with white, spotted with olive; the tail is rounding, extends five inches beyond the tips of the wings, and of a bright reddish brown, beautifully marked with numerous waving transverse bars of black, and is also crossed by a broad band of black within half an inch of the tip, which is bluish white, thickly sprinkled and speckled with black; body below white, marked with large blotches of pale brown; the legs are covered half-way to the feet with hairy down, of a brownish white color; legs and feet pale ash; toes pectinated along the sides, the two exterior ones joined at the base as far the first joint by a membrane; vent yellowish rust color.

The female and young birds differ in having the ruff or tufts of feathers in the neck of a dark brown color, as well as the bar of black on the tail inclining much to the same tint.



ENGLISH PHEASANT.

CHAPTER XXV.

The Woodcock and How to Hunt It.

A KNOWLEDGE of the habits and propensities of this delightful little hermit and haunter of dark vales and sequestered woodlands must be well acquired before its pursuit can be attended with even ordinary success. It visits the lowlands and swampy grounds in the latitude of Pennsylvania toward the latter part of March, and in the following month commences to build its nest. This is rudely constructed of a few withered leaves and blades of grass, and frequently is placed under the protection of an old log or stump. The eggs are either four or five in number, being $1\frac{1}{2}$ in. in length by 1 in. in diameter, and taper suddenly to the small end. These are of a dun clay color, thickly covered with blotches of brown, more abundant at the large end.

The young of the woodcock require such a large quantity of food that, were it to be carried to them, as is done by most other birds, they would probably be insufficiently fed. The parent birds therefore carry their offspring to and fro from the feeding grounds. The young bird is pressed between the feet and breast of the parent and carried considerable distances without apparent effort or inconvenience. Buffon cites an instance of the mother's taking a weak bird under its throat and carrying it over a hundred paces.

During the day the woodcock retreats into retirement, generally on high ground. But when the shades of evening begin to creep over the hills and along the valleys, it rises in the air to a considerable height in a spiral ascent, and after a few circles flies directly to its feeding grounds. We have frequently witnessed them as they drew forth from the loamy soil, long earth worms. One would have to pierce the soil with a knife a great many times before striking a worm, yet with wonderful certainty the woodcock draws one forth at each entrance of its long bill. It certainly cannot be due to the sense of feeling, which the bill has to an unusual degree, that the woodcock catches the worm.

If such were the case a great many perforations of the soil would have to be made before a grub or a worm were secured.

Some very amusing notions have been advanced as to the mode in which the birds obtain their food. That maintained by Paul Pastnor, which is given in his own words, will doubtless afford the reader no little interest. He writes in *Forest and Stream*:

"I took a position near one of the moist places along the brook, where the borings were freshest and most plentiful, and awaited developments. For a long time the bright light of the moon fell full upon the spot I wished to observe, and I could see everything with the utmost plainness. At about 8 o'clock a woodcock dropped down silently beside the brook. Presently another bird walked out of the shadow and joined it. Both began to bore for worms—an operation I had never seen before, and a curious performance it was. The birds would rest their bills upon the mud and stand in this position for several seconds, as if listening. Then with a sudden, swift movement, they would drive the bill its entire length in the soil, hold it so for a second, and then as swiftly withdraw it. Though I

watched the birds carefully with an opera glass, I could not detect the presence of a worm in their bills when they were withdrawn. But a subsequent process gave me a clew to their method of feeding. After having bored over a considerable piece of ground—a square foot or more—they proceeded to execute what looked comically like a war dance upon the perforated territory. They also occasionally tapped the ground with the edge of their wings.

“ My intense curiosity to know the possible utility of this process was at length gratified by seeing a worm crawl, half-length, from one of the borings, when it was immediately pounced upon and devoured by one of the woodcock. Presently another worm made its appearance, and so on until the two woodcock had devoured as many as a dozen of them. Then the ‘vein’ seemed exhausted and the birds took their leave.

“ I have subsequently studied the philosophy of this method of digging bait, and have come to the conclusion that certain birds are a great deal wiser than certain bipeds without feathers. If you will take a sharpened stick and drive it into the ground a number of times, in a spot which is prolific with worms, and

then tap on the ground with the stick a few minutes, you will find the worms will come to the surface, and that they will come up through the holes you have made. I account for it by the supposition that the tapping of the stick somehow affects the worms the same as the patter of rain, and it is a well known fact that worms come to the surface of the ground when it rains. The antics of the woodcocks after they had made their borings then were simply mimetic, and intended to delude the worms into the belief that it was raining in the upper world. The worms being deceived, came up and were devoured."

Those who have traversed a grass-plat at night with lighted lantern must have observed the presence of earth worms on the surface of the ground. During the night they seem to come to the surface, and it is not unreasonable to suppose that the woodcock, possessing a knowledge of this habit, defer their feeding until dark. It would appear possible for them to obtain sufficient of their favorite diet without boring their bills into the ground. It seems extraordinary that we are so little enlightened as to the habits of some of our commonest game birds. He who will study the

life histories of one or the other of those game birds, and record his observations, will receive the hearty thanks of the shooting community.

The male woodcock is $10\frac{1}{2}$ in. long, and 16 in. in extent; bill a brownish flesh color, black toward the tip, the upper mandible ending in a slight knob that projects one-tenth of an inch below the lower, each grooved, and in length somewhat more than $2\frac{1}{2}$ in.; forehead, line over the eye, and whole lower parts, reddish tawny; sides of the neck inclining to ash; behind the eye and bill a slight streak of dark brown; crown, from the fore part of the eye backward, black, crossed by three narrow bands of brownish white; cheeks marked with a bar of black, variegated with light brown; edges of the back and scapulars pale bluish white; back and scapulars deep black, each feather tipped or marbled with light brown and bright ferruginous, and fine numerous zig-zag lines of black crossing the lighter parts; quills plain dusky brown; tail black, each feather marked along the outer edge with small spots of pale brown, and ending in narrow tips of a pale drab above, and silvery white below; lining of the wing bright rust; legs and feet a pale

reddish flesh color; eye very full and black, seated high and very far back in the head; weight $4\frac{1}{2}$ oz., sometimes 6 oz.

The female is 12 in. long and 18 in. in extent; weighs 8 oz.; and differs also in having the bill very near 3 in. in length; the black on the back is not quite so intense; and the sides under the wings are slightly barred with dusky.

The best times for hunting the woodcock are the dawn of morning and two or three hours before dark. On moist drizzly days they may sometimes be found in wet lowland at all hours between sunrise and dark, though the times above specified are best, even when the weather conditions most favor the hunter. The woodcock shooter cannot locate the birds, as with ducks, by watching their flights. They doubtless arrive from the south and migrate thither again in the hours of darkness, as they are never seen to arrive or depart. It is, therefore, necessary that the sportsman should search their haunts until he has found one affording sport. It is asserted that if one woodcock is killed in a locality, another one will immediately take its place, and that even if three or four are killed the number will,

by this process, still remain intact. We have never been able to confirm the statement, but we are of opinion that the birds generally go in pairs, and that when one is killed the companion immediately secures another mate and returns to the same neighborhood. If these premises hold, it follows that when a certain spot is found to be stocked with a number of the birds, by refraining from the killing of more than two or three at one time, the sport may be prolonged until cold weather causes them to migrate.

The woodcock's preference for the north side of a hill is well known by all experienced sportsmen, and should be kept in mind when hunting them. This preference is probably due to the moisture of the soil on that side sheltered from the sun.

Woodcock shooting is no easy accomplishment. Their flight is very swift and irregular; and as they are seen only for a instant, a snap-shot is generally called for. The greatest difficulty of hitting them arises from the fact that the flight of individual birds differs; while one may fly straight, another jerks and twists with such perseverance that a **very** different style of shot is necessary. One advantage, however, is that they fly only a

few rods before alighting, and thus another chance of shooting is afforded.

The localities in which this sport is best pursued, are those overgrown with underbrush, brambles and thorns. A pointer or setter is often so soon exhausted in traveling through the cover that it must be replaced by another dog. The cocker spaniel will, however, be found equal to what is required of him in a woodcock cover; and on account of his hardiness is much to be preferred to any other breed. He should be taught to point and retrieve with equal aptness, for the birds often fall in such dense undergrowth, that the sportsman relying on himself to find the game would be baffled in discovering it.

The woodcock will fall to a very slight wound. No. 10 shot is amply large for use in this kind of hunting; No. 12 is used at times; but as it so rapidly loses its momentum and is not efficient at long ranges, it is not recommended.

Woodcock are sometimes found lying dead on the ground between telegraph poles, having flown against the wires at night during migration. They are frequently killed by lighthouses, being attracted by the

glare of the light; their bodies are often discovered beneath the windows against which they have flown with such violence as to break neck and wings.

By November, much to the northern sportsman's disappointment, the woodcock move off toward the south. A few are sometimes discovered during the winter around springs and mud holes that have not frozen over. These birds have probably been wounded, and are unable to migrate with the others of the family.

PART V.

INTRODUCTION OF FOREIGN GAME.

CHAPTER XXVI.

The Introduction of Foreign Game.

AMONG all the sportsmen of the world, we in America are richly blessed with beautiful and inspiring surroundings of natural scenery, amid which to follow our favorite recreation, and with a rich variety of game birds and animals. Very wisely and providently, however, we have set about the enterprise of adding to our game and enlarging the scope of our opportunities with the gun. The closing years of the century have witnessed notable achievements in the introduction of exotic species of game birds—achievements of which the benefits have already been reaped in gratifying measure, and which are full of promise of a yet richer fruition in the future. With all his apparent heedlessness of keeping up the indigenous game

supply, the American sportsman of the present day is showing himself to be large-minded, endowed with sagacity and forethought, and given to enterprises, which, in their beneficent purposes, concern less the present than the future. Those, who, as individuals or associations, have intelligently undertaken this work of the introduction of foreign game birds, are deserving of all credit, and their enterprises will be followed with intense and appreciative interest.

The practicability of the introduction of foreign species of feathered game for the covers of this continent has amply been demonstrated, both in the East and in the West. The English pheasant has been brought to New Jersey, New York, Vermont and other States; and has been reared so successfully as to stock not only the grounds of the private preserves where first put out, but the surrounding covers as well. Thus the birds turned out by Mr. Pierre Lorillard at Jobstown in New Jersey, by the Tuxedo Club in Orange County in New York, and by Dr. Webb at Shelburne Farms in Vermont, have thrived, multiplied, overflowed into the adjacent country, and won for themselves not only a secure foothold on American soil, but a recognized

place as game in popular estimation and in the protective statutes. In the Northwest, too, the Mongolian pheasants, first introduced into Oregon in 1882 by Judge O. N. Denny, then U. S. Consul-General at Shanghai, have increased to such an extent that they are to-day probably the most numerous of all upland feathered game in that State. With the European pheasant firmly established on the Atlantic coast and the Mongolian pheasant on the Pacific coast, and with other plantings of the same and other species here and there through the length and breadth of the United States, the shooting opportunities of the sportsman of the immediate future appear to be well assured.

There are yet other species to which attention may wisely be given, and in the introduction of which efforts may profitably be expended. Among those which appear desirable acquisitions are the capercailzie and the black game, two noble representatives of the grouse family of Europe. Both birds are highly esteemed for game and food qualities in their native countries; both, we believe, would be esteemed here. There was transmitted to the Department of State, in 1890, by Hon. W. W. Thomas, Jr., our Minister to Sweden, and him-

self an accomplished sportsman, a report describing the nature and qualities of these birds, and urging the Government to undertake their introduction into America. The valuable, suggestive and public-spirited communication from Minister Thomas has supplied the data from which the description of the two birds in the following paragraphs has been drawn; and it is a pleasure here to put on permanent record in this bound volume of the "Complete Sportsman" an expression of the appreciation which is due to our Minister to Sweden for his suggestions. In the time, which surely is coming, when the capercailzie and the black game shall be familiar game birds on this continent, he who shall turn these pages may by them be reminded anew of the credit belonging to Mr. Thomas, and of the gratitude which the shooting sportsman of that day should feel toward him.

The capercailzie and black game, says Mr. Thomas, are the two most important wild birds in Sweden and Norway, and make a valuable addition to the food of the Scandinavian people. These birds are excellent upon the table, their flesh resembling that of the American prairie chickens.



BLACKCOCK.

The Capercaillie.

The capercailzie is the largest and noblest of the grouse family—the family to which the pinnated grouse (prairie chicken) and ruffed grouse (partridge or pheasant) belong. The full-grown male capercailzie weighs from 10 to 12 lbs., and some specimens considerably exceed this weight. These birds approach very nearly the size of the wild turkey of America.

The home of the capercailzie extends over a wide range of latitude and temperature in two continents. From the wooded, mountainous regions of northern Spain and Greece, northward throughout Europe, this bird is found in most of the lofty forest districts suitable for his abode; he is abundant in the great pine and spruce forests of the Scandinavian peninsula, Finland and Russia, and the vast forest stretches of northern Asia.

The capercailzie is an extremely hardy bird. In Sweden and Norway he is found in large numbers up to and beyond the arctic circle, as far as the seventieth parallel of north latitude. He can endure the severest cold and deepest snows of the longest winters. He often avoids the bitterest cold by burrowing into the

snow, thus obtaining warmth and shelter. This bird subsists on the coarsest and commonest food. He feeds upon the buds and leaves of trees, the needles or leaves of the pine and spruce, young pine cones, clover and grass, berries of all sorts, seed and grain, and insects of every kind.

The capercailzie is pre-eminently a bird of the pine woods, or pine mixed with birch, spruce, maple and other growths. He loves wooded hillsides better than wooded plains, and he must have fresh water near by—either a brook or pond or a piece of swampy ground.

He is a local, not a migratory bird, though sometimes lack of food or other causes may drive him to extensive wanderings. In his habits he resembles the American ruffed grouse—though in size he is nearly ten times as large—and will thrive anywhere in the United States where the ruffed grouse is found.

The black game inhabits nearly the same regions as the capercailzie. He is equally hardy, and can withstand the cold and snows of the most rigorous northern winters. His weight is about 3 lbs.—about the same as our prairie chicken. The male bird is a lustrous, metallic black in color, hence the name.

The Black Game.

The black game is often found in company with the capercailzie, or at least in close proximity. The black game is also a bird of the woods, but the birch is pre-eminently his tree, though he is met with in mixed growths of almost every variety. He does not frequent the deep woods so much as the capercailzie; he loves better the borders of the forest, and woods and groves with frequent openings. He is also fond of cranberry swamps, and in swampy lands is often found miles away from any forest.

His food is much the same as that of the capercailzie, though not quite so coarse. It consists chiefly of the buds and leaves of trees, berries and insects. In summer the black game is very fond of blueberries, raspberries and cranberries; in winter he feeds principally upon the buds of the birch, hazel, alder, willow and beech, and when pressed for food will eat the young green cones of the pine. The bird seems to be equally fond of animal food, and readily eats snails, worms, the larvæ of ants, flies, beetles, etc. He is a more social bird than the capercailzie, and comes out more into the fields and clearings and nearer the abodes of man.

A great portion of the United States—at least one-third, perhaps one-half, writes Mr. Thomas, is fitted to be the home of the capercailzie and the black game. They will thrive throughout all the wooded districts of New England, New York and Pennsylvania, and westward through the greater portion of the States of Michigan, Wisconsin and Minnesota. They will also find a congenial home along the wooded slopes of the Rocky Mountains for their entire length, as well as in the wooded ravines and declivities of the mountain ranges of California, Oregon and Washington. The fact that these birds are found among the hills and mountains of Europe as far south as Greece, Italy and Spain renders it almost certain that they will find a congenial climate and nature throughout the entire ranges of the Alleghenies, Blue Ridge and the Cumberland Mountains, together with their spurs, sidehills and outlying forest districts, and may thus easily be acclimated over large sections of the States of Virginia, West Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia and Alabama.

Mr. Thomas tells us that capercailzie suitable for exportation are sold in the Stockholm markets at \$12

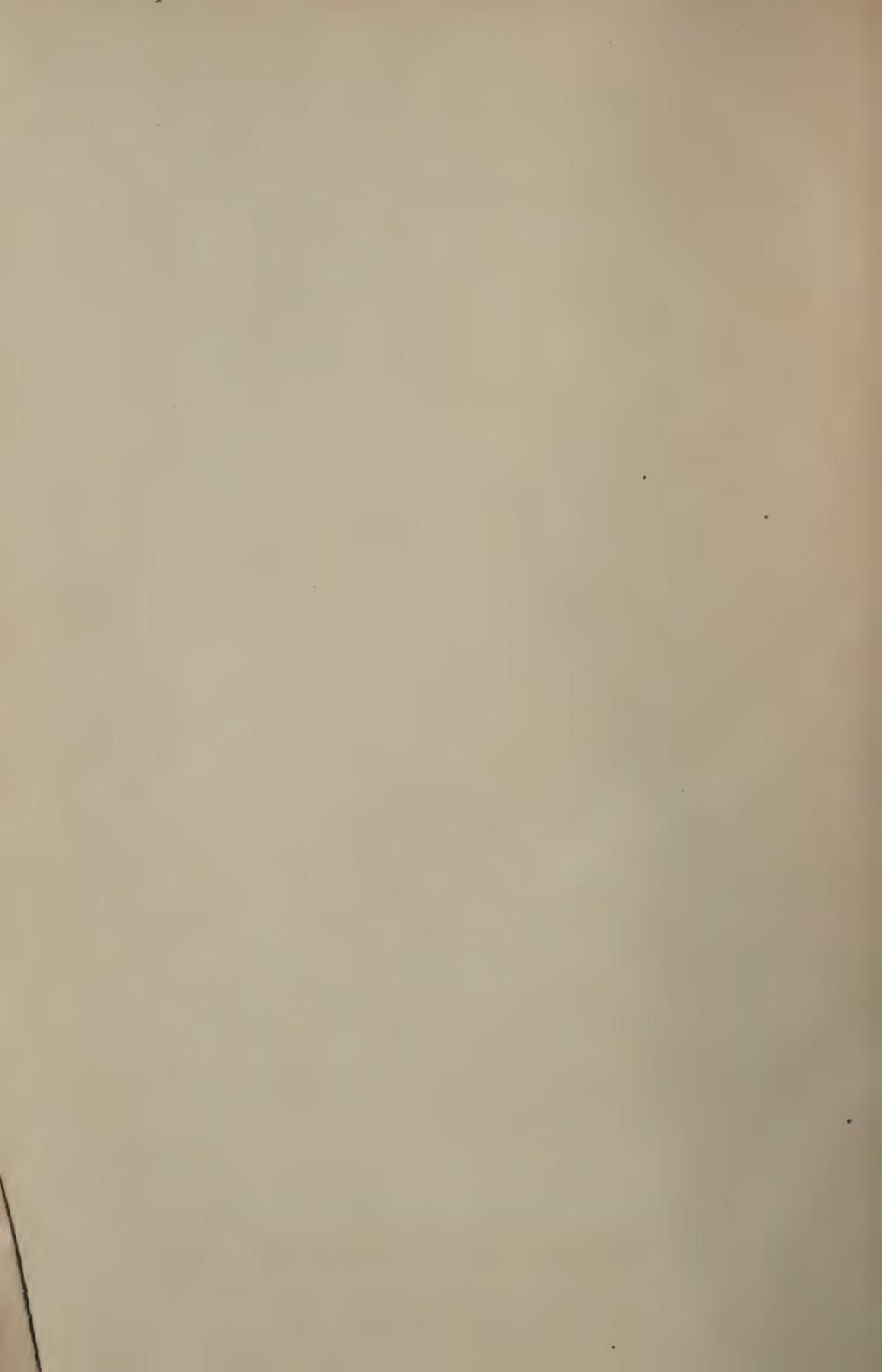
apiece. This price, though apparently high, seems less unreasonable when it is considered that out of a hundred trapped birds the mortality is very high, and all the poor and sickly ones are excluded. Black game may be secured for \$7 apiece, being always delivered at the home market in a strong and absolutely healthy condition.

We most warmly commend to every shooting individual and club, for their careful and thorough consideration, this subject of foreign game bird importation, suggesting that such liberal efforts and expenditures be made as may promise to increase the abundance and variety of our game fauna, and thereby augment the pleasure and satisfaction of a day's recreation with the dog and gun afield.

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